WATER SUPPLY OUTLOOK FOR MONTANA

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

MONTANA AGRICULTURAL EXPERIMENT STATION

SNOW PILLOW RECORDS
1974 WATER YEAR

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Cover Photo: Snow Surveyors near Ship Creek, Alaska snow course.

S. C. S. PHOTO A-272-11

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 511 N. W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and tor British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

USDA SCS PORTLAND OREG 1973

WATER SUPPLY OUTLOOK FOR MONTANA

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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CONTENTS

MONTANA FALL SUMMARY
October 1, 1974

Most areas received above average runoff this past season. Cool spring weather delayed melt and caused large snowmelt peak flows in southwest and western Montana. Precipitation was variable over the state during the main growing season. The water supply this season was generally adequate for all needs, a significant and welcome reversal from the previous year's drought conditions.

COLUMBIA RIVER DRAINAGE

The seasons snow accumulation started on soils with near average moisture content, near average snowpack in upper Clark Fork drainage, and above average pack elsewhere. Unseasonal rains and warm temperatures in January caused major flooding in northwest Montana. Low elevation snowpack was depleted, high elevations had significant increases. Most areas had near record snowpack at the time of maximum accumulation. The exception was the upper Clark Fork drainage. Cool spring delayed almost all melt until nearly mid-June. Heavier than usual late season snowpack was present at lower elevations. Large areas of snow began melting with coming of warm weather and many areas experienced high peak streamflow with only minimal contribution from rainfall. The delayed melt and heavy snowpack combined to provide good late season water supplies in areas with high elevation headwaters. Storage in irrigation reservoirs is generally below average but greater than last year.

Current moisture in headwater soils is variable but generally near to a little below average with better moisture conditions in the northern areas.

MISSOURI RIVER DRAINAGE

Weather conditions appear to have been more erratic than usual. Warm spells occurred during normally cool periods, cold weather persisted into June followed by quite long periods of hot weather. Normally wet June was relatively dry. Streamflow was almost as variable with areas having good snowpack and high elevation headwaters producing good streamflow. The Gallatin River had one of the largest peak flow of record. Deficient runoff was observed in the Red Rock area as the result of low spring rainfall and heavy irrigation demands once warm weather began.

In general, near average streamflow occurred in Northern areas increasing to above average in most southwest drainages except the Red Rock.

Currently mountain soils are drier than usual as the result of a long pleasant Indian summer and lack of fall rains.

YELLOWSTONE RIVER DRAINAGE

The Yellowstone headwaters had above average snowpack and below average soil moisture at the beginning of the season. Snowfall decreased and temperatures increased in mid-season with increased snowfall near maximum snow accumulation period. The snow season ended with above average snowpack. The cool spring combined with the large remaining low and mid-elevation snowpack caused large peak flows when weather warmed. Streamflow held up well through the irrigation season

with many high elevations still having remnant snowbanks that will not melt this season.

Mountain soils are generally drier than usual in medium and lower elevations.

SOIL MOISTURE — JULY 1, 1974

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average +
COLUMBIA RIVER BASIN							
Kootenai							
Baree Trail	3800	48	7.5	6/28	5.0	-	5.4
Murphy Lake R. S.	3000	48	22.6	7/1	19.4	19.1	20.1
Raven	3050	48	23.0	6/28	14.0	-	18.0
Flathead							
Desert Mountain	5600	54	8.4	7/1	8.2	8.2	8.5
Marias Pass	5250	54	6.5	6/30	5.6	5.4	5.4
Clark Fork							
Black Pine	7100	48	10.0	7/1	8.9	9.0	8.9
Lubrecht Forest	4100	48	26.8	7/4	14.0	-	-
Seeley Lake R. S.	4030	48	11.9	7/3	10.1	4.4	7.7
Skalkaho Summit	7260	48	10.8	7/1	10.0	10.5	10.2
Bitterroot							
Gibbons Pass	7100	48	7.1	7/5	5.8	6.0	6.4
Lolo Pass	5250	48	10.6	6/28	10.0	7.0	9.4
MISSOURI RIVER BASIN							
Beaverhead							
Lakeview	6700	48	15.3	6/28	9.1	16.8	14.0
Madison							
West Yellowstone	6700	48	6.5	7/4	2.6	3.0	3.0
Gallatin							
Bridger Bowl	7250	48	17.0	6/26	15.0	15.6	16.1
College Site No. 2	4856	54	17.7	6/28	11.1	17.3	13.4
Lick Creek	6860	48	18.8	6/28	16.2	-	17.9
Twenty-One Mile	7150	48	10.0	7/4	8.3	8.4	8.7
Missouri Main Stem							
Kings Hill	7420	48	11.8	6/26	11.6	10.3	10.7
Stemple Pass	6350	48	5.9	7/3	4.3	-	5.1
Milk							
Beaver Creek	3950	48	20.9	6/26	11.8	16.3	12.0
Rocky Boy	4700	36	10.1	6/26	8.8	9.4	9.0
Yellowstone							
Battle Ridge	6020	48	17.6	6/26	12.1	12.8	14.8
Northeast Entrance	7350	48	9.4	6/29	7.1	8.0	8.9
PMC Dryland	3700	48	20.7	7/1	7.3	8.9	-

USDA SCS PORTLAND OREGON 1974 VT-6-22624-2F

+ Average for period of record.

SOIL MOISTURE

AUGUST 1, 1974

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average +
COLUMBIA RIVER BASIN							
Kootenai							
Baree Trail	3800	48	7.5	8/5	2.7	2.7	3.8
Murphy Lake R. S.	3000	48	22.6	8/1	18.9	18.5	18.9
Raven	3050	48	23.0	8/5	13.5	13.2	16.6
Flathead							
Desert Mountain	5600	54	8.4	7/30	6.4	5.7	6.4
Marias Pass	5250	54	6.5	7/29	4.0	4.0	4.2
Clark Fork							
Black Pine	7100	48	10.0	8/1	8.1	8.1	8.5
Lubrecht Forest	4100	48	26.8	-	12.7	-	-
Seeley Lake R. S.	4030	48	11.9	8/6	6.6	3.8	6.8
Skalkaho Summit	7260	48	10.8	8/1	10.4	10.4	10.4
Bitterroot							
Gibbons Pass	7100	48	7.1	8/1	3.8	3.4	4.9
Lolo Pass	5250	48	10.6	7/29	6.2	3.5	5.8
MISSOURI RIVER BASIN							
Beaverhead							
Lakeview	6700	48	15.3	7/31	14.5	14.1	10.0
Madison							
West Yellowstone	6700	48	6.5	7/30	1.4	2.4	2.2
Gallatin							
Bridger Bowl	7250	48	17.0	7/19	14.9	15.2	15.6
College Site No. 2	4856	54	17.7	8/2	8.4	10.9	10.2
Lick Creek	6860	48	18.8	8/7	13.3	12.5	14.9
Twenty-One Mile	7150	48	10.0	7/30	4.4	5.2	5.5
Missouri Main Stem							
Kings Hill	7420	48	11.8	8/1	9.2	9.5	9.2
Stemple Pass	6350	48	5.9	8/1	3.5	3.2	4.0
Milk							
Beaver Creek	3950	48	20.9	7/31	7.6	7.5	8.3
Rocky Boy	4700	36	10.1	7/31	6.8	6.3	7.5
Yellowstone							
Battle Ridge	6020	48	17.6	7/19	10.6	8.0	11.1
Northeast Entrance	7350	48	9.4	7/26	5.2	5.6	6.6
PMC Dryland	3700	48	20.7	7/29	4.9	7.0	-

+ Average for period of record.

SOIL MOISTURE

SEPTEMBER 1, 1974

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average +
COLUMBIA RIVER BASIN							
Kootenai							
Baree Trail	3800	48	7.5	8/30	2.4	2.6	4.2
Murphy Lake R. S.	3000	48	22.6	8/31	18.7	18.6	18.8
Raven	3050	48	23.0	8/30	13.5	13.2	15.6
Flathead							
Desert Mountain	5600	54	8.4	9/5	4.9	4.9	5.2
Marias Pass	5250	54	6.5	9/5	3.5	3.1	3.6
Clark Fork							
Black Pine	7100	48	10.0	8/29	8.3	7.1	8.0
Lubrecht Forest	4100	48	26.8	9/5	13.4	12.6	-
Seeley Lake R. S.	4030	48	11.9	9/3	4.2	3.8	4.1
Skalkaho Summit	7260	48	10.8	8/29	10.3	9.0	9.8
Bitterroot							
Gibbons Pass	7100	48	7.1	9/6	4.3	2.6	3.8
Lolo Pass	5250	48	10.6	8/28	4.4	2.2	4.1
MISSOURI RIVER BASIN							
Beaverhead							
Lakeview	6700	48	15.3	8/31	8.7	12.9	8.8
Madison							
West Yellowstone	6700	48	6.5	9/3	1.5	1.8	1.9
Gallatin							
Bridger Bowl	7250	48	17.0	8/28	15.0	15.3	16.0
College Site No. 2	4856	54	17.7	8/30	17.2	9.4	9.1
Lick Creek	6860	48	18.8	8/27	12.2	11.4	15.2
Twenty-One Mile	7150	48	10.0	9/3	2.8	3.4	3.8
Missouri Main Stem							
Kings Hill	7420	48	11.8	8/29	9.4	6.6	7.7
Stemple Pass	6350	48	5.9	8/30	3.8	3.0	3.7
Milk							
Beaver Creek	3950	48	20.9	8/29	11.1	7.3	6.6
Rocky Boy	4700	36	10.1	8/29	9.5	6.0	6.4
Yellowstone							
Battle Ridge	6020	48	17.6	8/28	8.9	8.2	9.3
Northeast Entrance	7350	48	9.4	8/31	3.8	4.2	5.7
PMC Dryland	3700	48	20.7	9/2	5.3	6.3	-

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+ Average for period of record.

SOIL MOISTURE

OCTOBER 1, 1974

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average +
COLUMBIA RIVER BASIN							
Kootenai							
Baree Trail	3800	48	7.5	-	-	4.9	5.1
Murphy Lake R. S.	3000	48	22.6	-	-	18.4	18.5
Raven	3050	48	23.0	-	-	13.3	16.6
Flathead							
Desert Mountain	5600	54	8.4	-	-	5.7	5.8
Marias Pass	5250	54	6.5	9/29	3.2	3.1	3.9
Clark Fork							
Black Pine	7100	48	10.0	9/30	7.8	8.3	8.0
Lubrecht Forest	4100	48	26.8	-	-	-	-
Seeley Lake R. S.	4030	48	11.9	10/2	4.0	3.8	4.2
Skalkaho Summit	7260	48	10.8	10/1	9.5	10.2	10.2
Bitterroot							
Gibbons Pass	7100	48	7.1	9/30	3.1	4.0	4.3
Lolo Pass	5250	48	10.6	9/27	3.2	3.1	4.5
MISSOURI RIVER BASIN							
Beaverhead							
Lakeview	6700	48	15.3	9/30	6.4	14.0	8.1
Madison							
West Yellowstone	6700	48	6.5	9/28	1.3	2.5	2.6
Gallatin							
Bridger Bowl	7250	48	17.0	9/24	15.0	15.3	15.7
College Site No. 2	4856	54	17.7	9/27	12.5	11.7	10.1
Lick Creek	6860	48	18.8	9/25	12.0	12.5	15.7
Twenty-One Mile	7150	48	10.0	9/28	2.2	6.2	4.7
Missouri Main Stem							
Kings Hill	7420	48	11.8	9/30	9.2	8.2	7.4
Stemple Pass	6350	48	5.9	9/30	3.2	4.0	3.8
Milk							
Beaver Creek	3950	48	20.9	9/26	8.8	7.1	6.7
Rocky Boy	4700	36	10.1	9/26	8.8	6.2	6.7
Yellowstone							
Battle Ridge	6020	48	17.6	9/24	7.9	7.9	9.9
Northeast Entrance	7350	48	9.4	10/1	3.6	5.8	6.7
PMC Dryland	3700	48	20.7	9/30	5.3	6.8	-

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+ Average for period of record.

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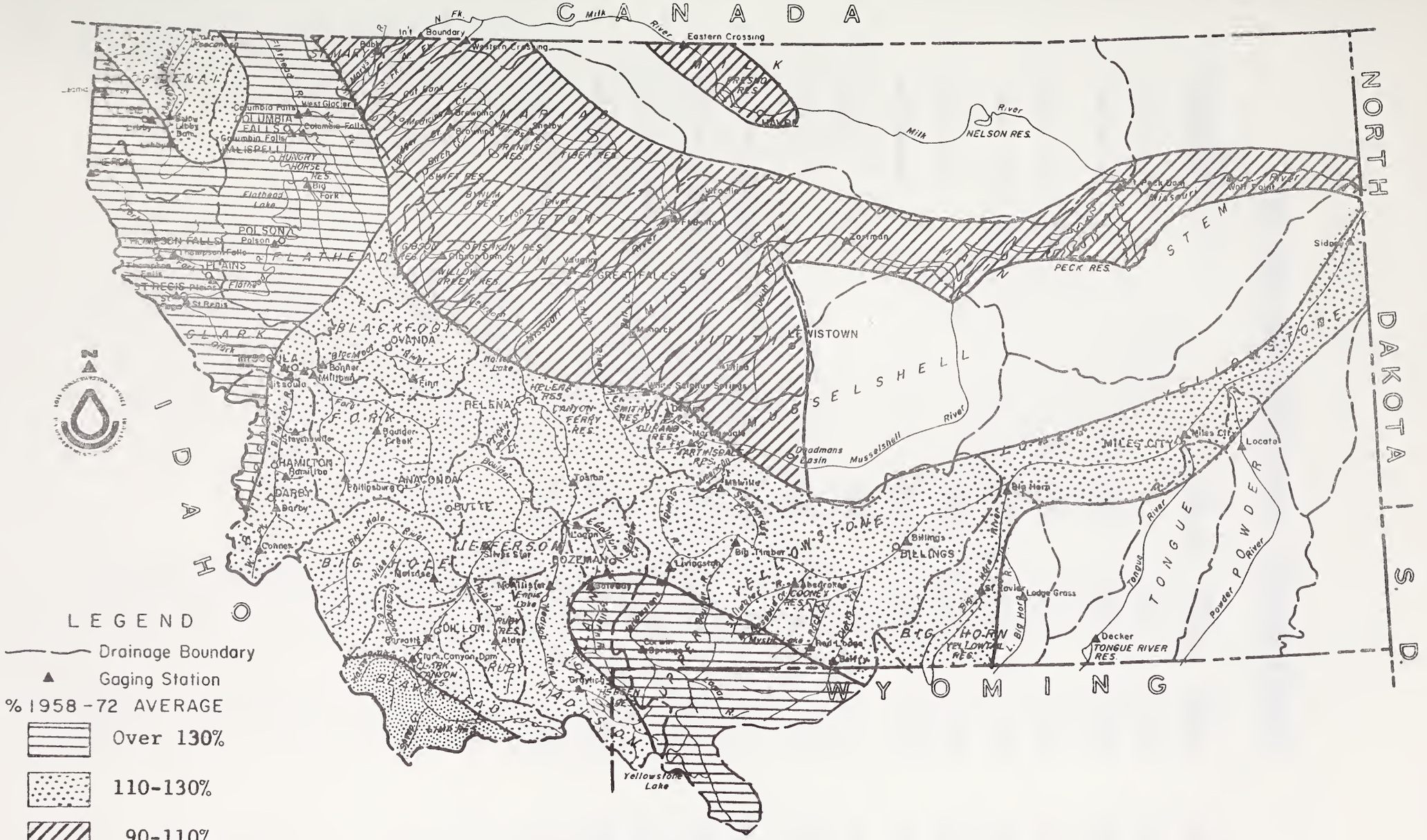

1974 April through September streamflow based on provisional data provided by USGS, USBR, SCS, and others.

M7-0-21138-L

1974 SNOW COVER COMPARISONS - PERCENT AVERAGE

DRAINAGE	JAN. 1	FEB. 1	MAR. 1	APR. 1	MAY 1
Kootenai	-	117	131	139	145
Flathead	134	117	129	127	135
Upper Clark Fork	104	110	108	115	96
Lower Clark Fork	132	118	134	136	135
Bitterroot	133	120	130	136	133
Jefferson	106	102	113	131	117
Madison	124	118	109	139	122
Gallatin	110	96	87	117	117
Sun-Marias-Teton	100	88	111	115	98
Missouri Main Stem	97	100	109	114	98
Milk Headwaters	-	88	108	109	99
Yellowstone	114	107	100	120	116
Little Bighorn	-	60	86	76	91

RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average
COLUMBIA RIVER BASIN					
Kootenai	Koocanusa	4,965.0	5,420.0	2,781.0	-
Flathead	Hungry Horse	3,428.0	3,215.0	2,771.0	3,293.0
	Flathead Lake	1,791.0	1,762.0	1,734.0	1,738.0
	Camas (4)	45.2	16.9	9.8	21.4
	Mission Valley (8)	100.3	29.8	9.4	22.7
Clark Fork	Georgetown Lake	31.0	25.8	20.6	28.4
	Lower Willow Creek	4.6	0.3	0.0	1.2
	Nevada Creek	12.6	-	-	4.8
	Noxon Rapids	334.6	316.5	330.6	323.7
Bitterroot	Como	34.9	-	0.7	1.7
	Painted Rocks	31.7	14.3	2.2	26.5
MISSOURI RIVER BASIN					
Beaverhead	Clark Canyon	328.9	62.0	91.9	125.6
	Lima	84.0	28.4	39.0	27.1
Ruby	Ruby	38.8	-	-	10.8
Madison	Hebgen Lake	377.5	341.2	325.7	315.9
	Ennis Lake	41.0	38.2	39.3	36.4
Gallatin	Middle Creek	8.0	4.7	2.8	2.9
Missouri	Canyon Ferry	2,043.0	1,667.0	1,769.0	1,742.0
	Hauser & Helena	61.9	46.1	61.9	58.7
	Lake Helena	10.4	10.2	10.4	10.3
	Holter Lake	81.9	78.9	81.6	75.4
	Smith River	10.7	0.9	0.2	4.8
	Bair	7.0	5.4	0.0	3.0
	Martinsdale	23.1	14.3	0.6	7.8
	Deadman's Basin	72.2	37.3	20.1	32.5
	Fort Peck Lake	19,410.0	17,160.0	15,920.0	14,550.0
Sun	Gibson	105.0	45.1	3.0	31.0
	Willow Creek	32.3	24.2	10.3	17.7
	Pishkun	32.0	17.8	3.9	16.4
Marias	Lower Two Medicine	16.6	8.6	0.7	-
	Four Horns	19.2	14.1	8.6	-
	Swift	30.0	10.6	4.4	13.9
	Lake Frances	112.0	22.3	33.2	78.9
	Tiber	1,347.0	531.7	520.0	642.3
Milk	Fresno	127.2	104.6	15.6	66.2
	Nelson	66.8	57.6	22.9	43.4
	Lake Sherburne	66.1	7.9	8.4	6.4
Yellowstone	Mystic Lake	20.8	15.7	19.0	20.1
	Tongue River	68.0	-	-	24.1
	Cooney	27.5	17.0	17.0	12.2
Bighorn	Bighorn Lake	1,356.0	1,056.0	1,072.0	977.9

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Average based on 1958-72 period.

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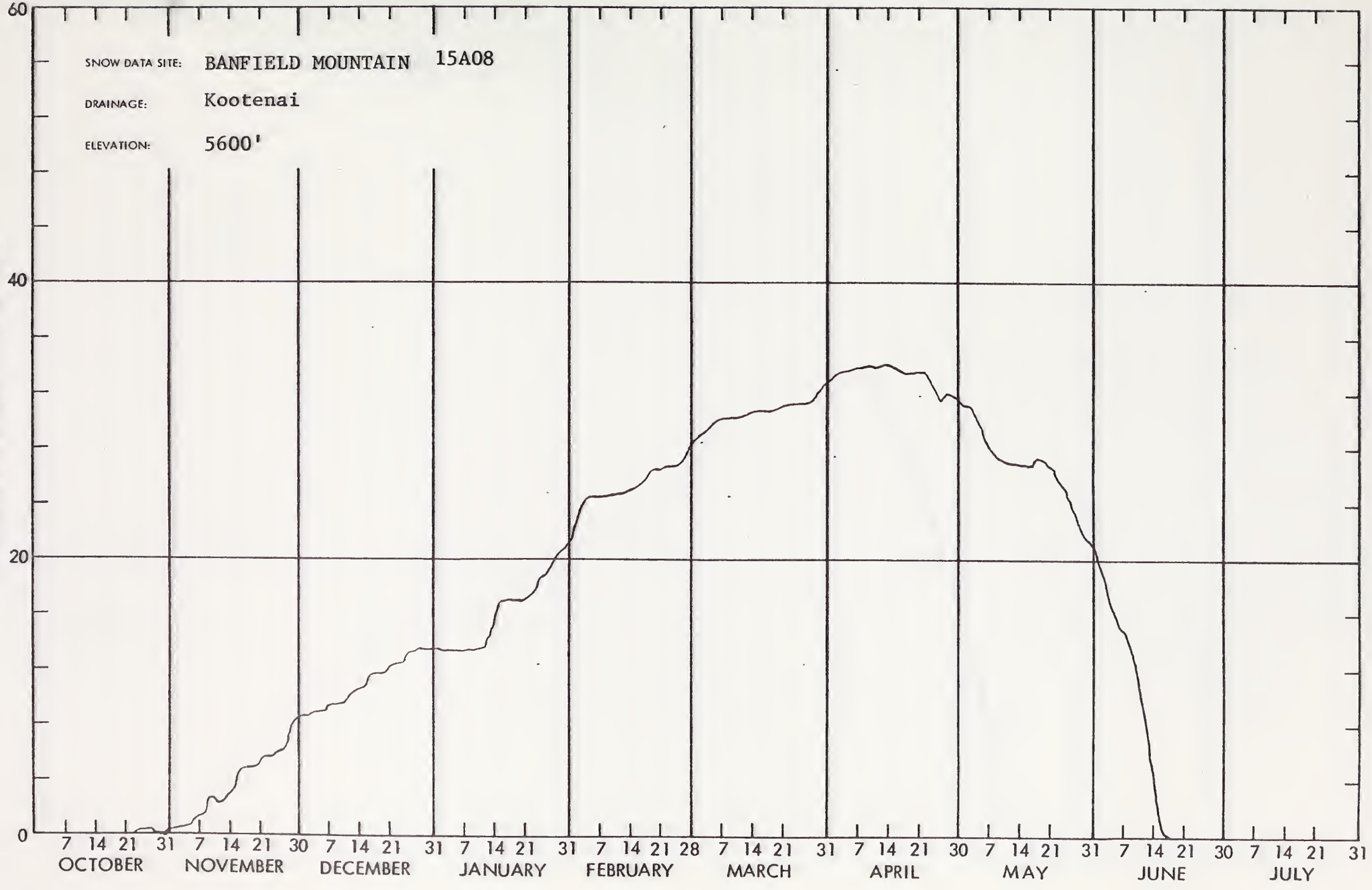
SNOW DATA SITE: BANFIELD MOUNTAIN 15A08
DRAINAGE: Kootenai
ELEVATION: 5600'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY

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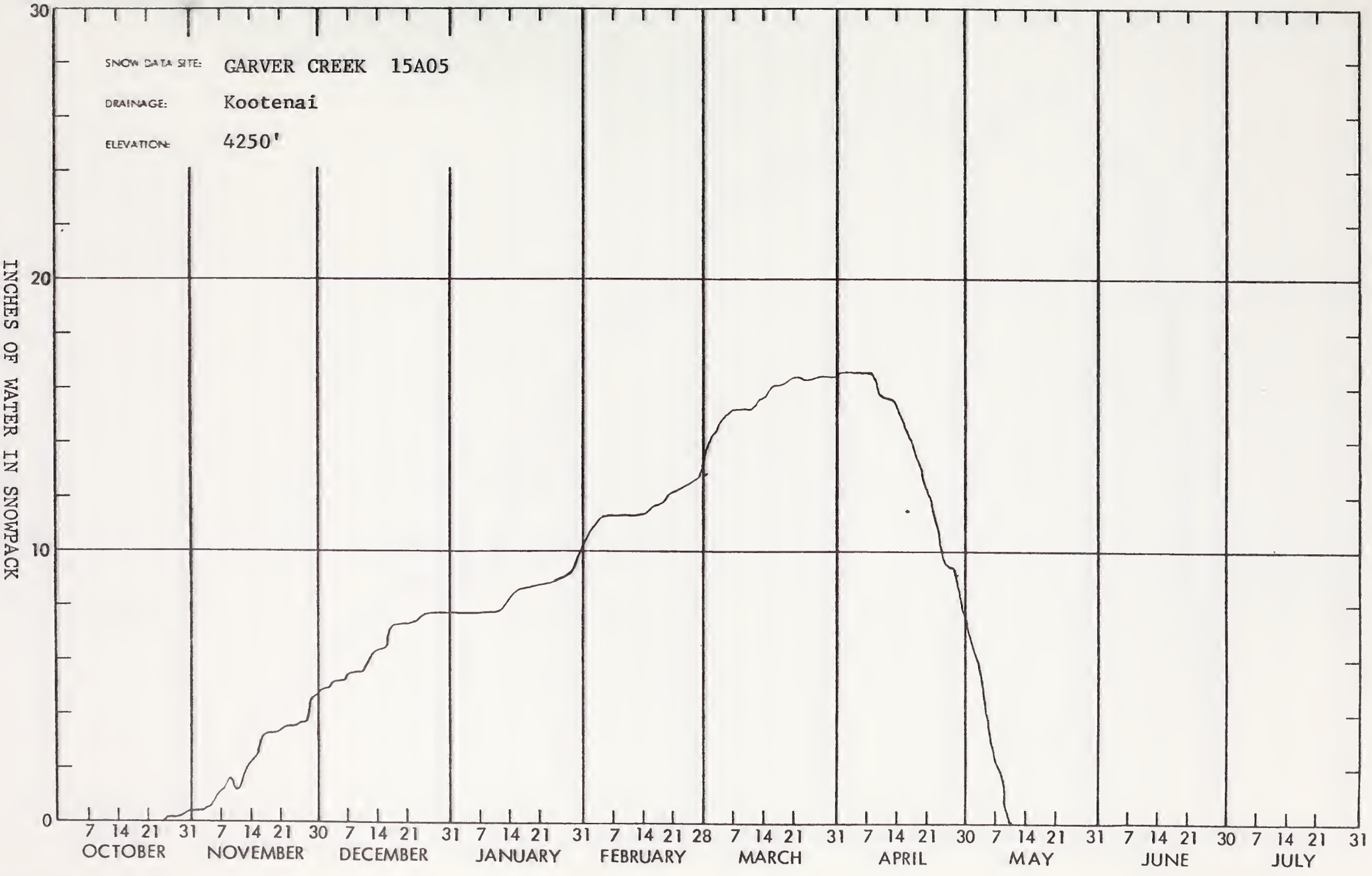
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DRAINAGE: Kootenai
ELEVATION: 4250'
INCHES OF WATER IN SNOWPACK
30
20
10
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OCTOBER
NOVEMBER
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JANUARY
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JULY

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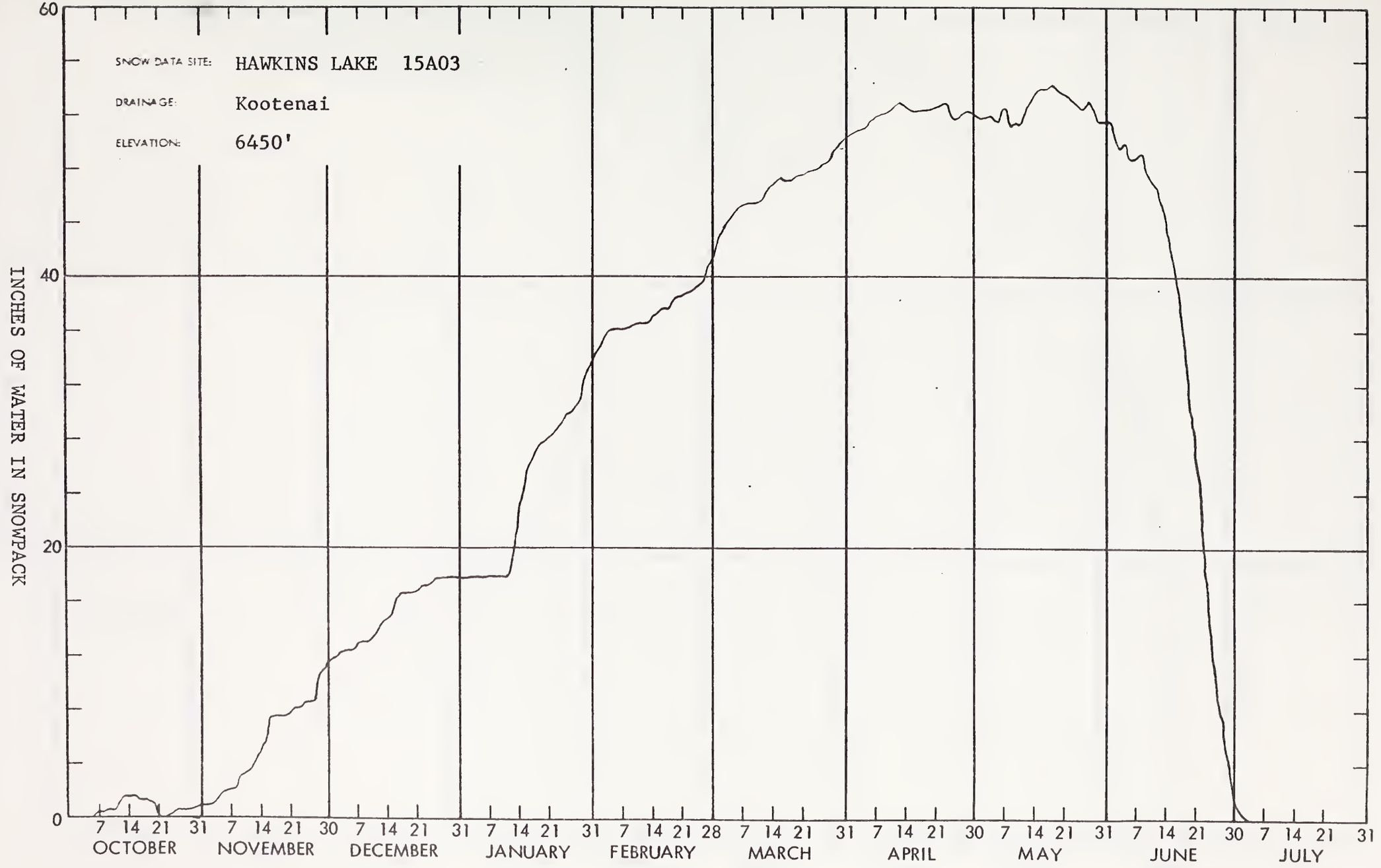
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DRAINAGE: Kootenai
ELEVATION: 6450'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY

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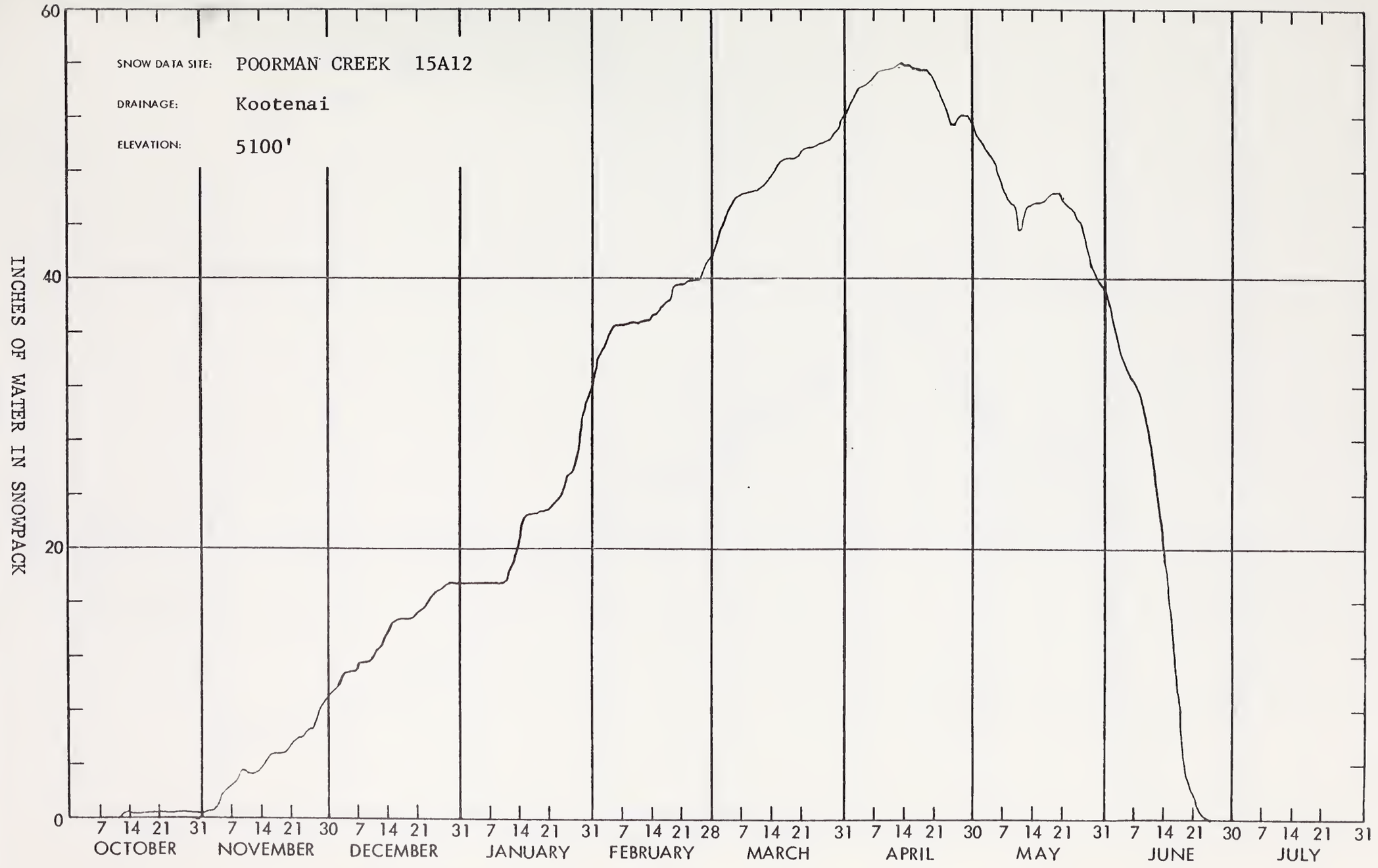
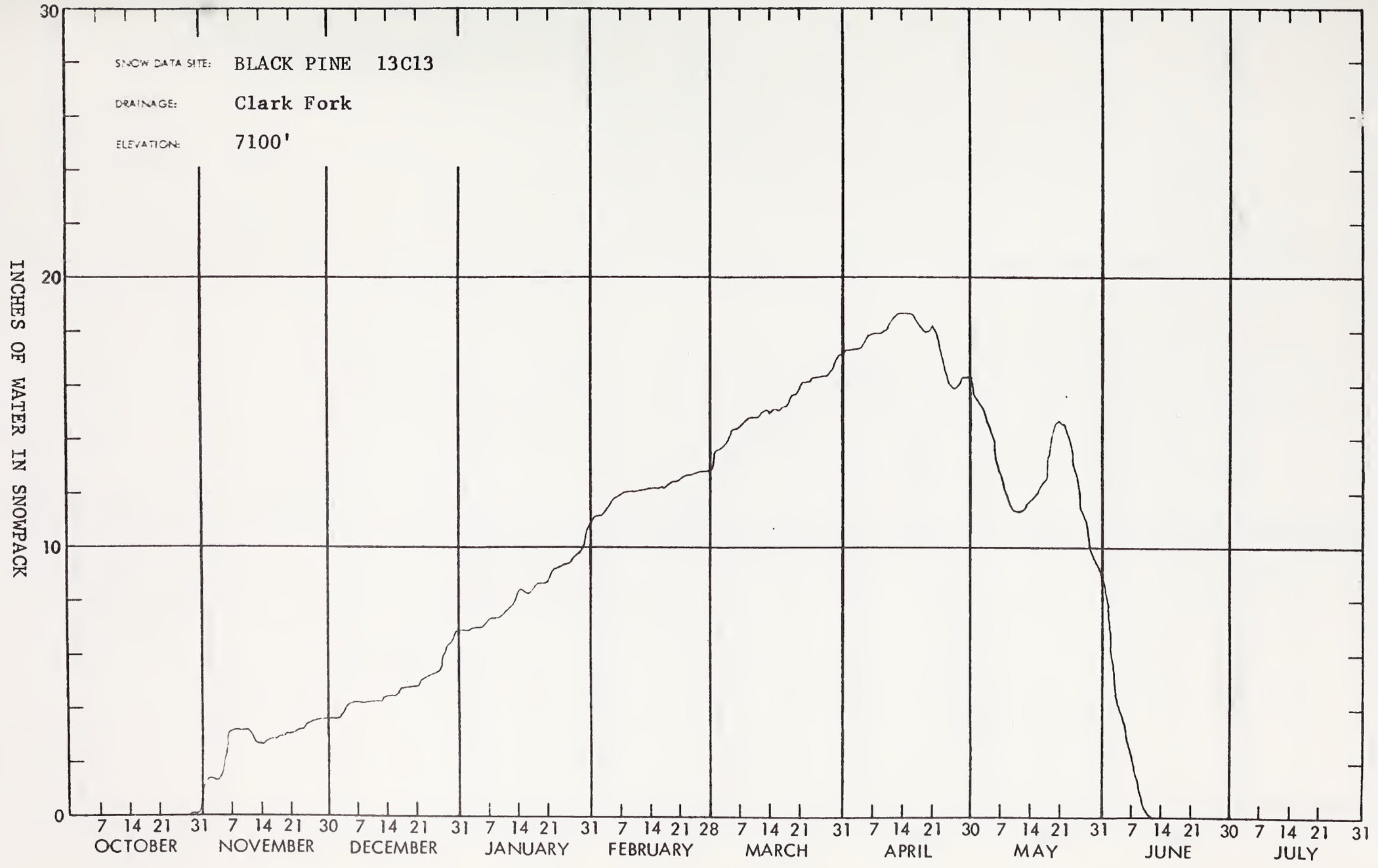

SNOW DATA SITE: POORMAN CREEK 15A12
DRAINAGE: Kootenai
ELEVATION: 5100'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY

WSFB-X138


SNOW DATA SITE: BLACK PINE 13C13
DRAINAGE: Clark Fork
ELEVATION: 7100'
INCHES OF WATER IN SNOWPACK
30
20
10
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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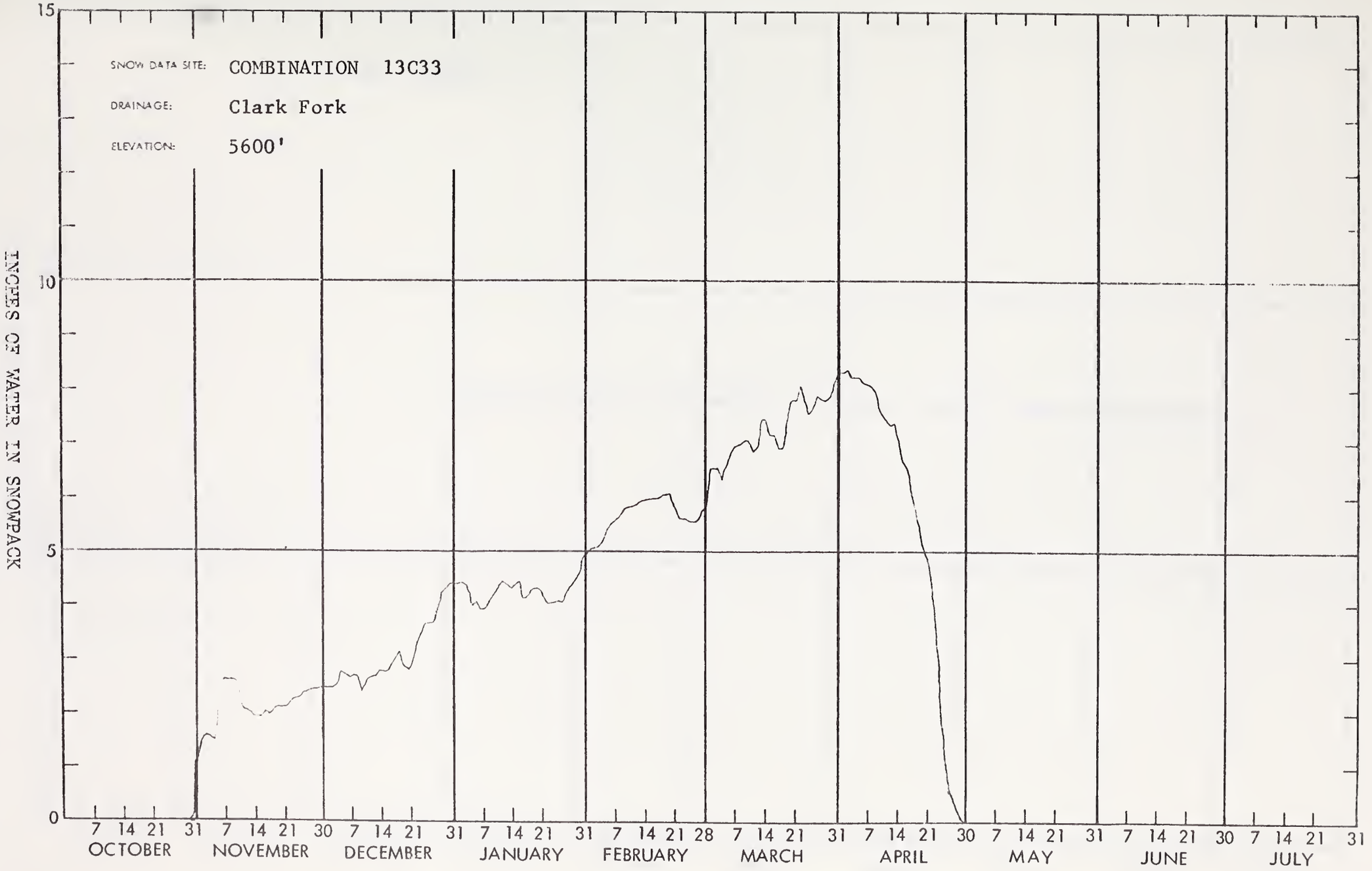
WSFB-X13A


SNOW DATA SITE: COMBINATION 13C33
DRAINAGE: Clark Fork
ELEVATION: 5600'
INCHES OF WATER IN SNOWPACK
15
10
5
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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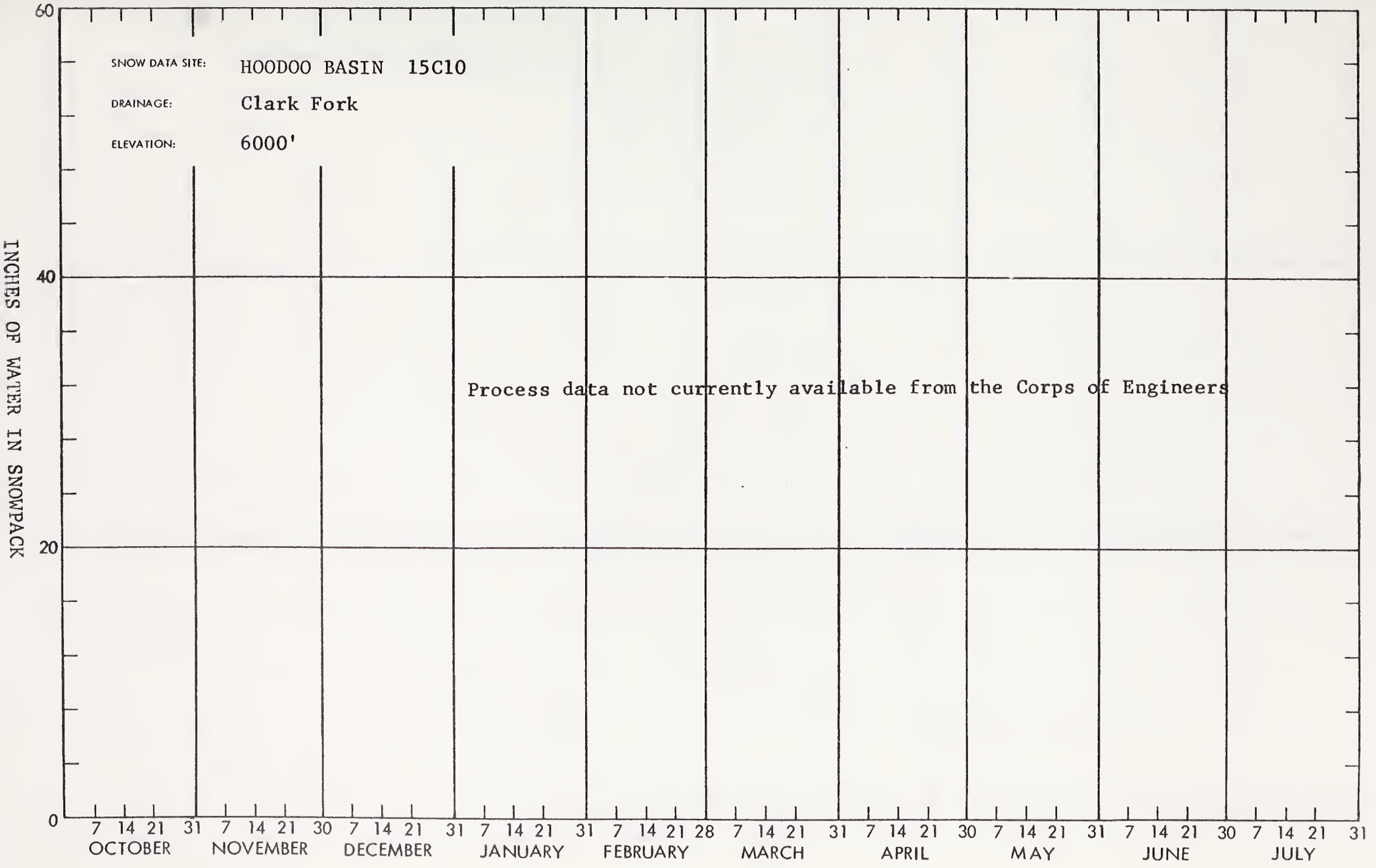
SFB-X13C


SNOW DATA SITE: HOODOO BASIN 15C10
DRAINAGE: Clark Fork
ELEVATION: 6000'
Process data not currently available from the Corps of Engineers
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

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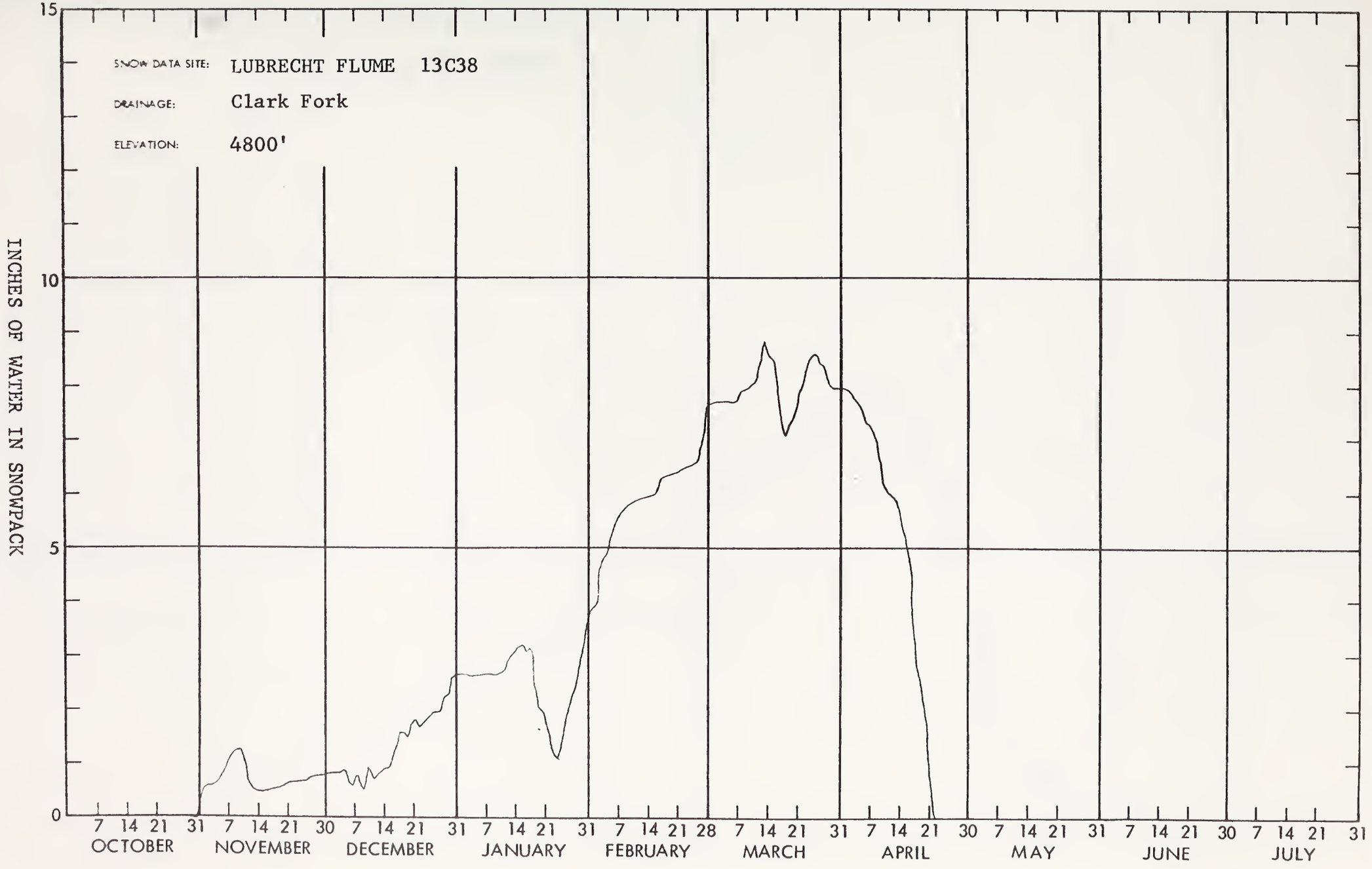
SNOW DATA SITE: LUBRECHT FLUME 13C38
DRAINAGE: Clark Fork
ELEVATION: 4800'
INCHES OF WATER IN SNOWPACK
15
10
5
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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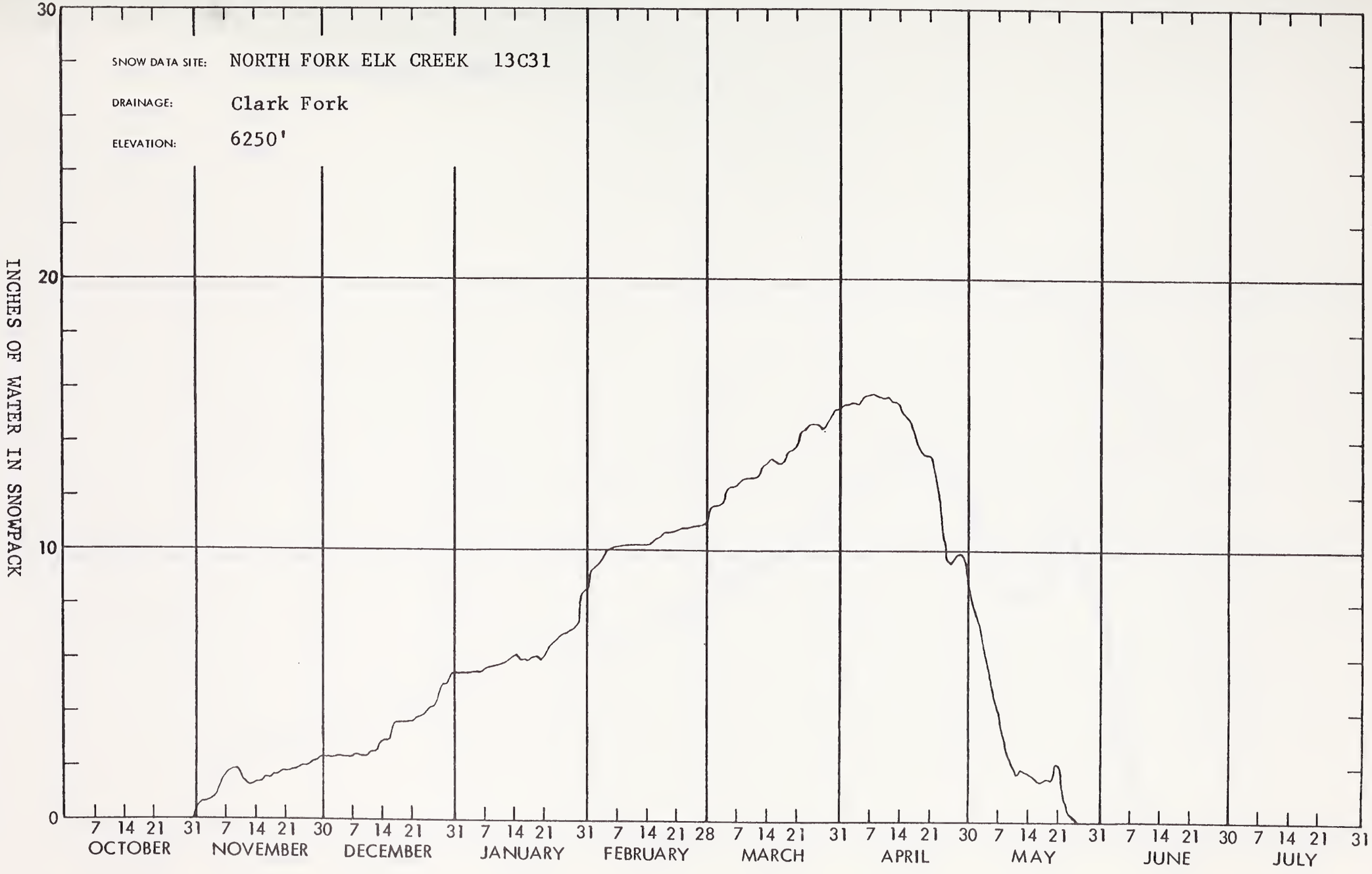
SNOW DATA SITE: NORTH FORK ELK CREEK 13C31
DRAINAGE: Clark Fork
ELEVATION: 6250'
INCHES OF WATER IN SNOWPACK
30
20
10
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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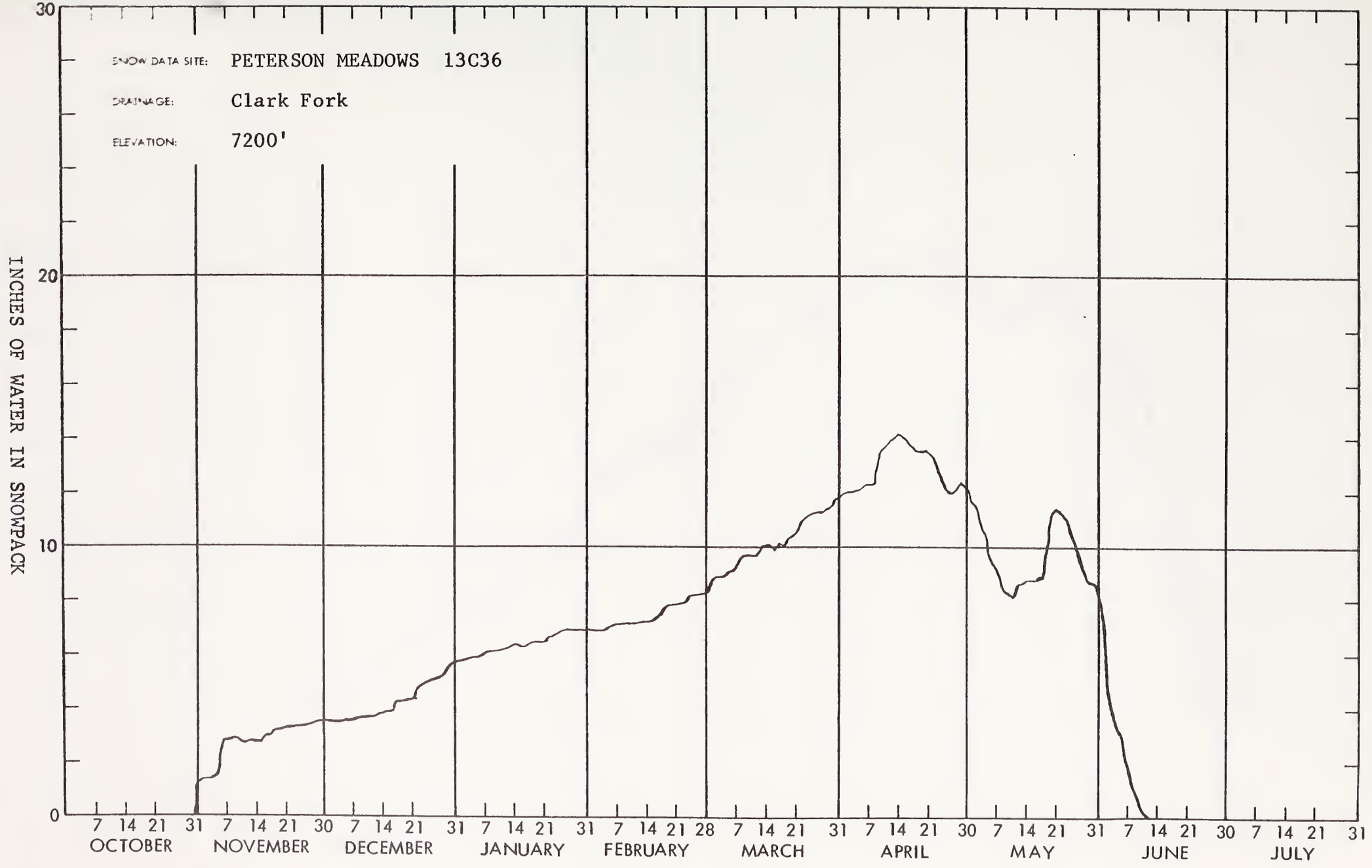
SNOW DATA SITE: PETERSON MEADOWS 13C36
DRAINAGE: Clark Fork
ELEVATION: 7200'
INCHES OF WATER IN SNOWPACK
30
20
10
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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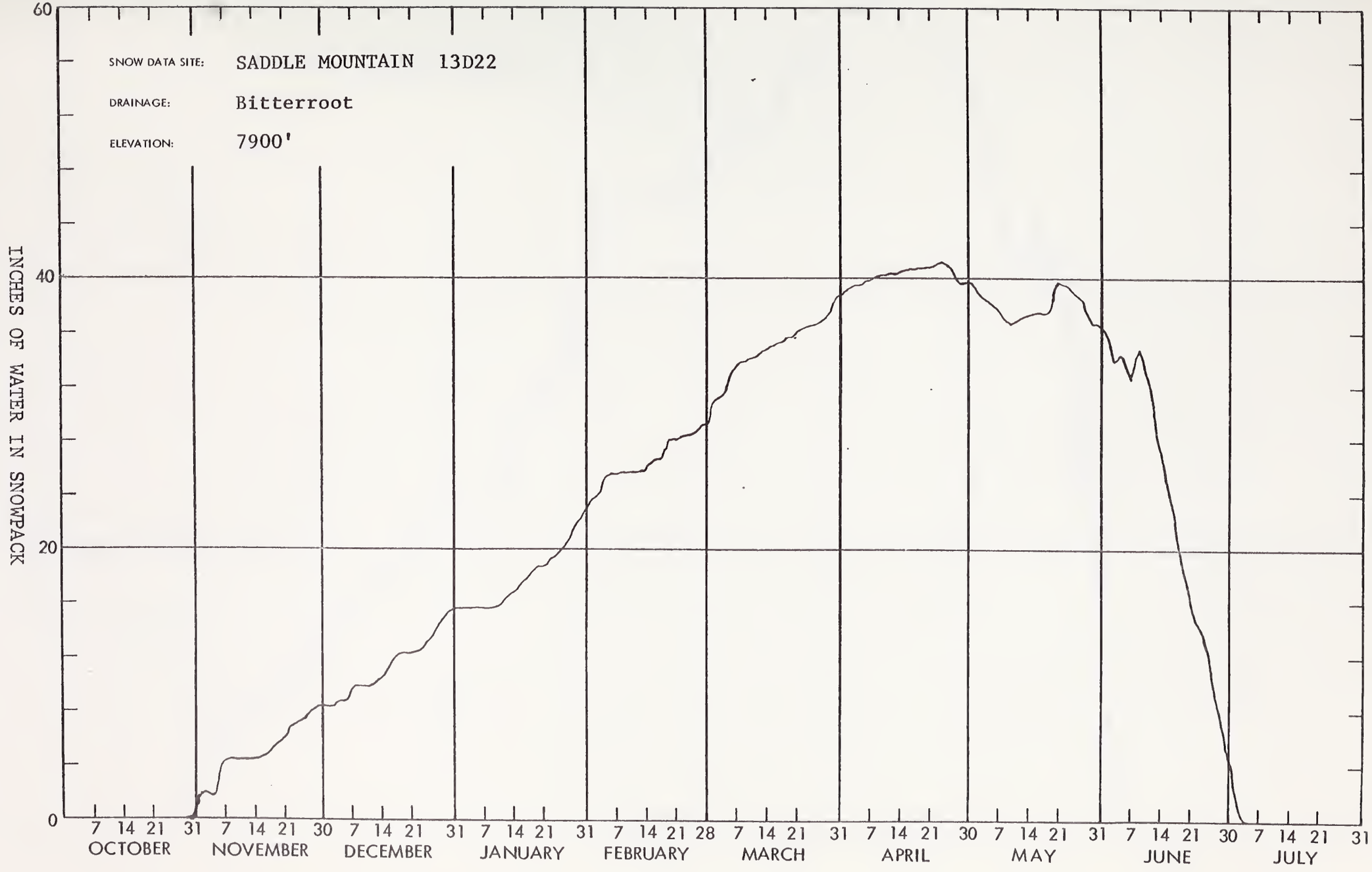
SNOW DATA SITE: SADDLE MOUNTAIN 13D22
DRAINAGE: Bitterroot
ELEVATION: 7900'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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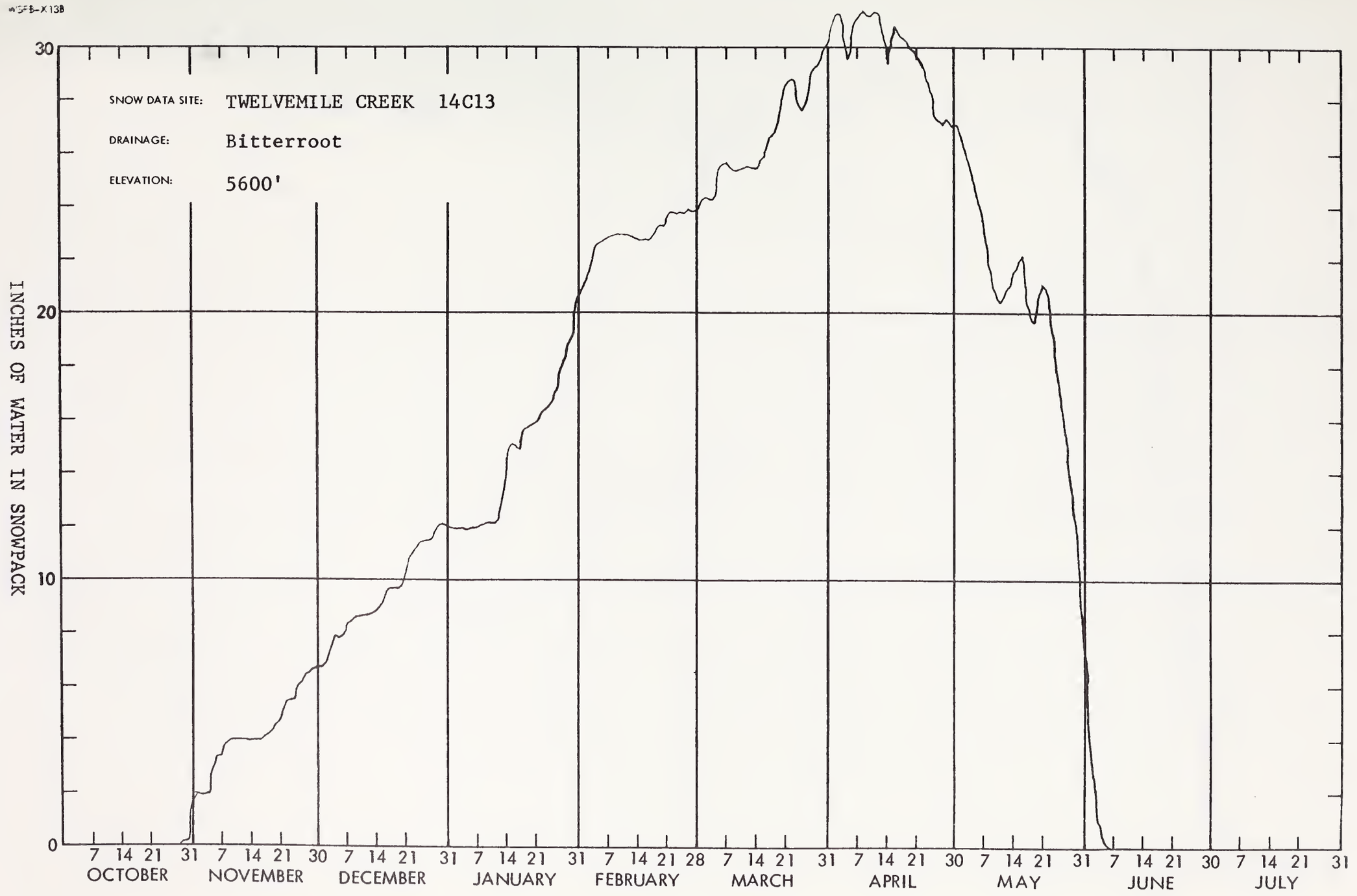
SNOW DATA SITE: TWELVEMILE CREEK 14C13
DRAINAGE: Bitterroot
ELEVATION: 5600'
INCHES OF WATER IN SNOWPACK
0
10
20
30
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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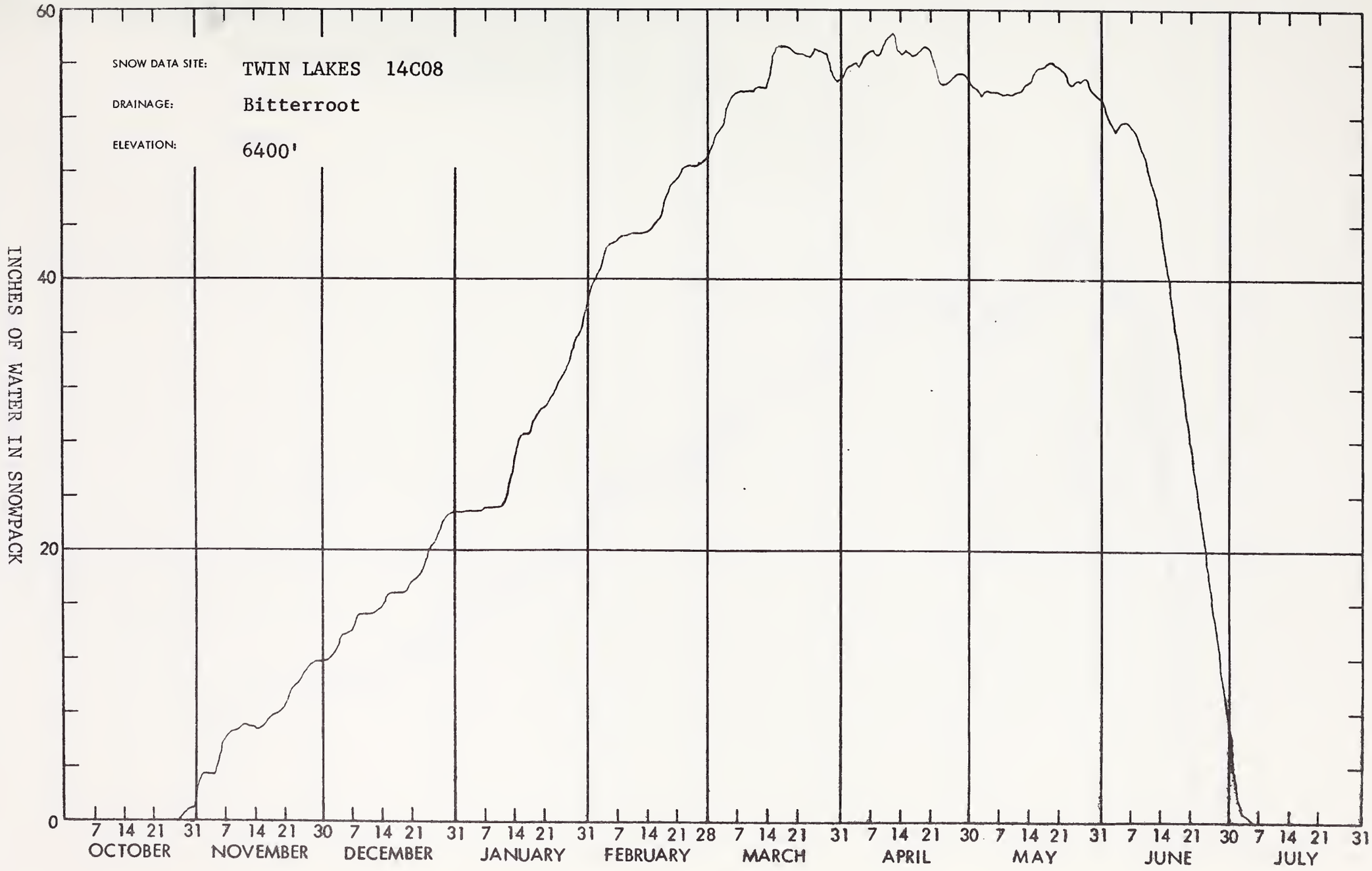
SNOW DATA SITE: TWIN LAKES 14C08
DRAINAGE: Bitterroot
ELEVATION: 6400'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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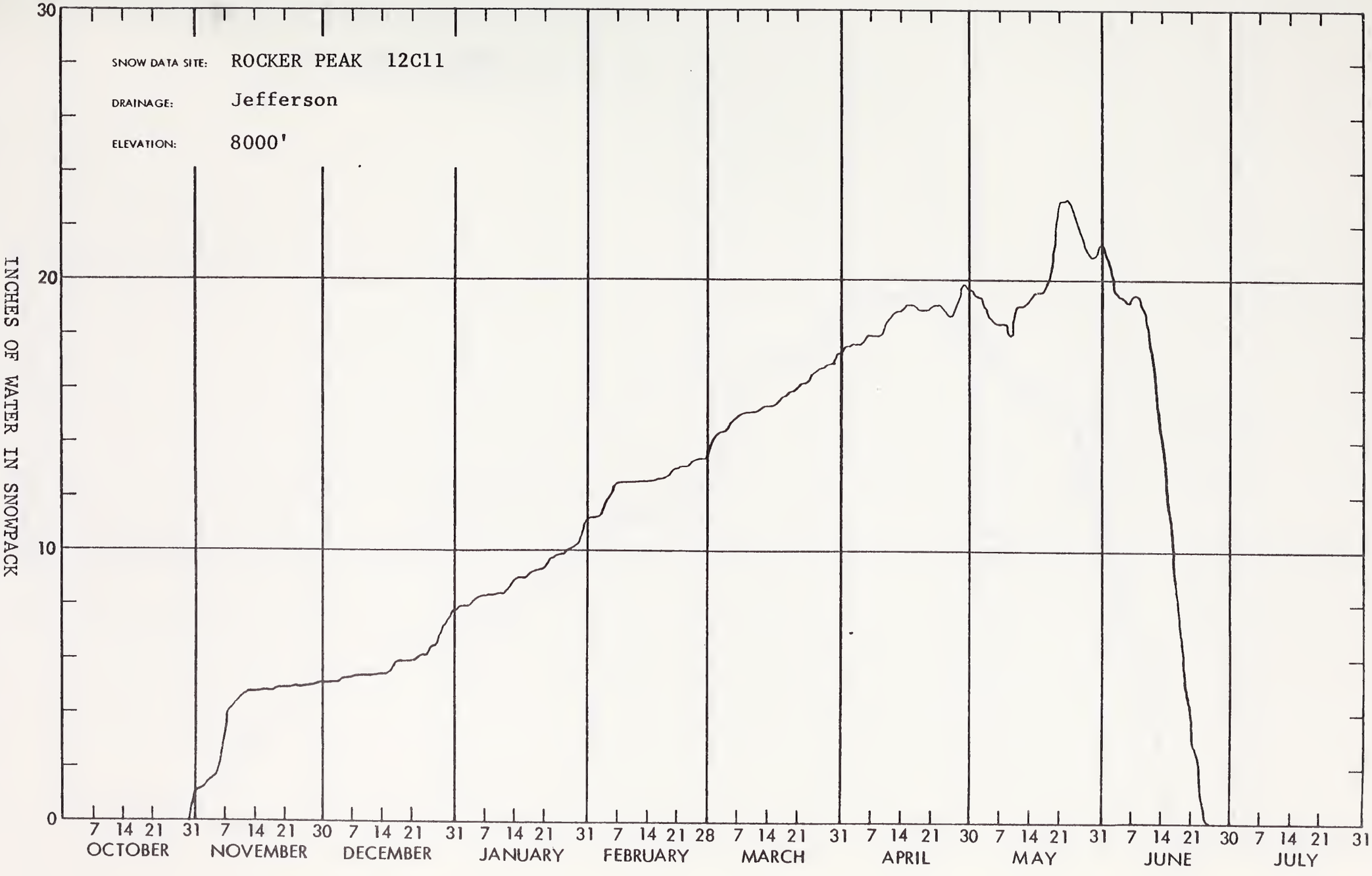
SNOW DATA SITE: ROCKER PEAK 12C11
DRAINAGE: Jefferson
ELEVATION: 8000'
INCHES OF WATER IN SNOWPACK
30
20
10
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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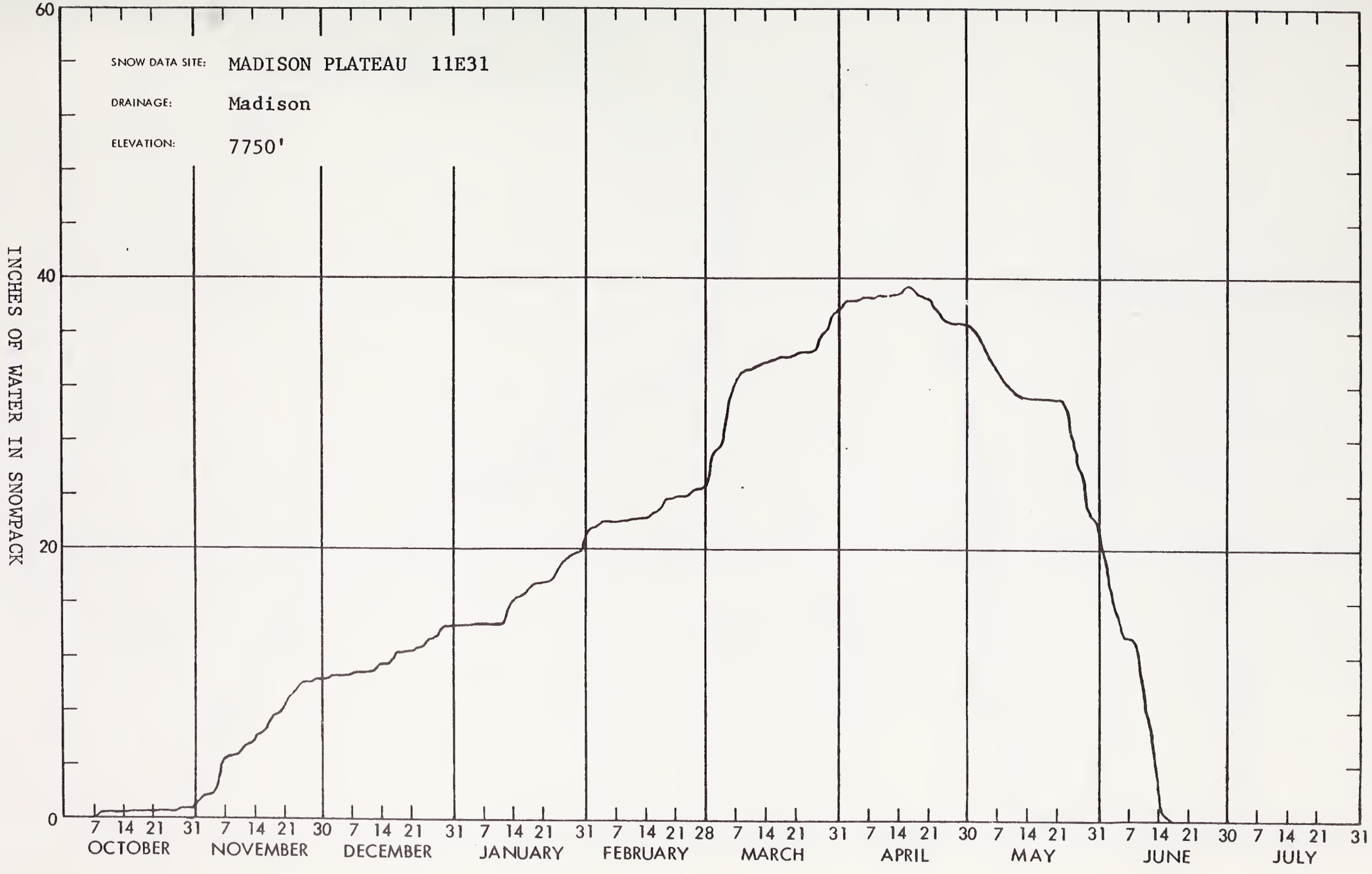
SNOW DATA SITE: MADISON PLATEAU 11E31
DRAINAGE: Madison
ELEVATION: 7750'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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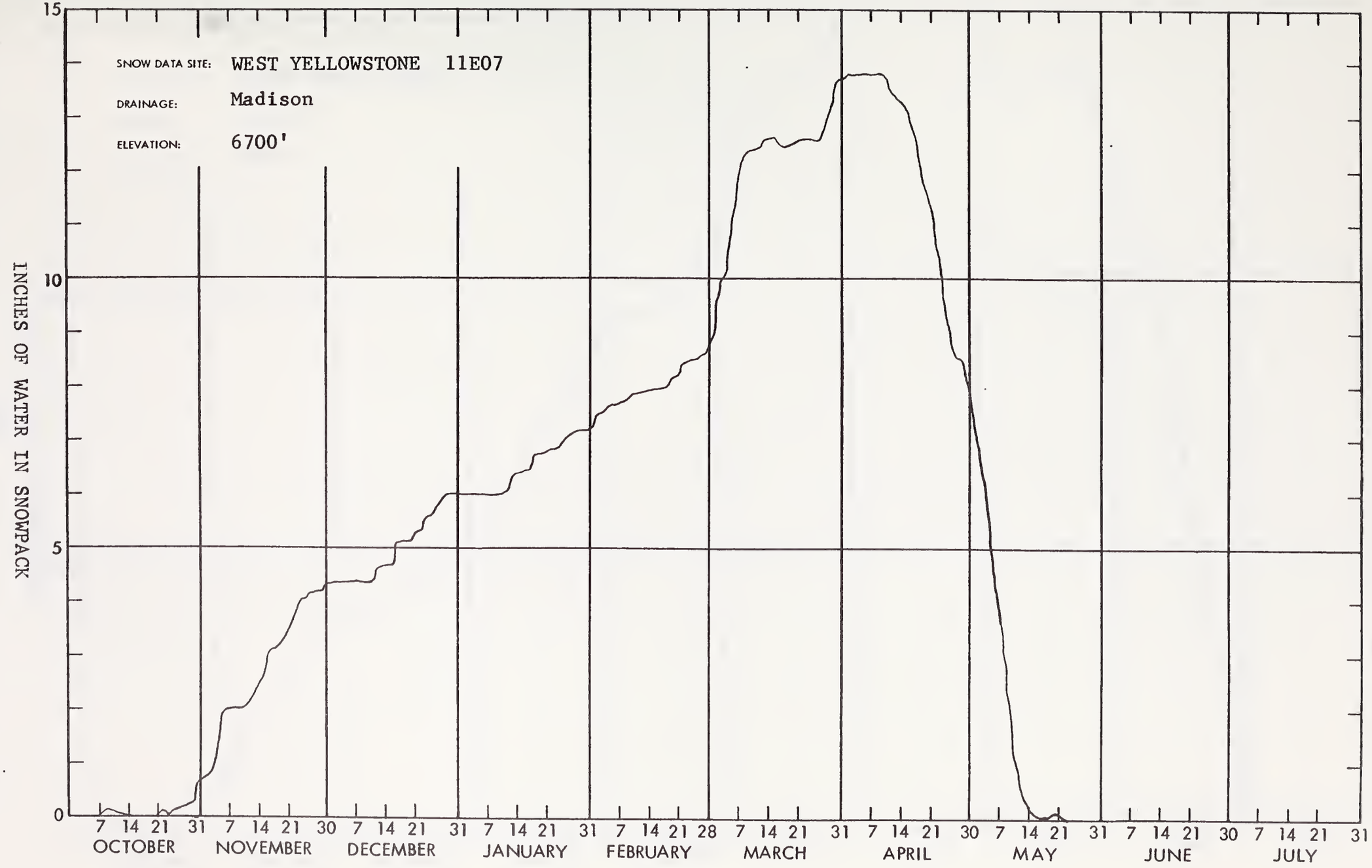
SNOW DATA SITE: WEST YELLOWSTONE 11E07
DRAINAGE: Madison
ELEVATION: 6700'
INCHES OF WATER IN SNOWPACK
15
10
5
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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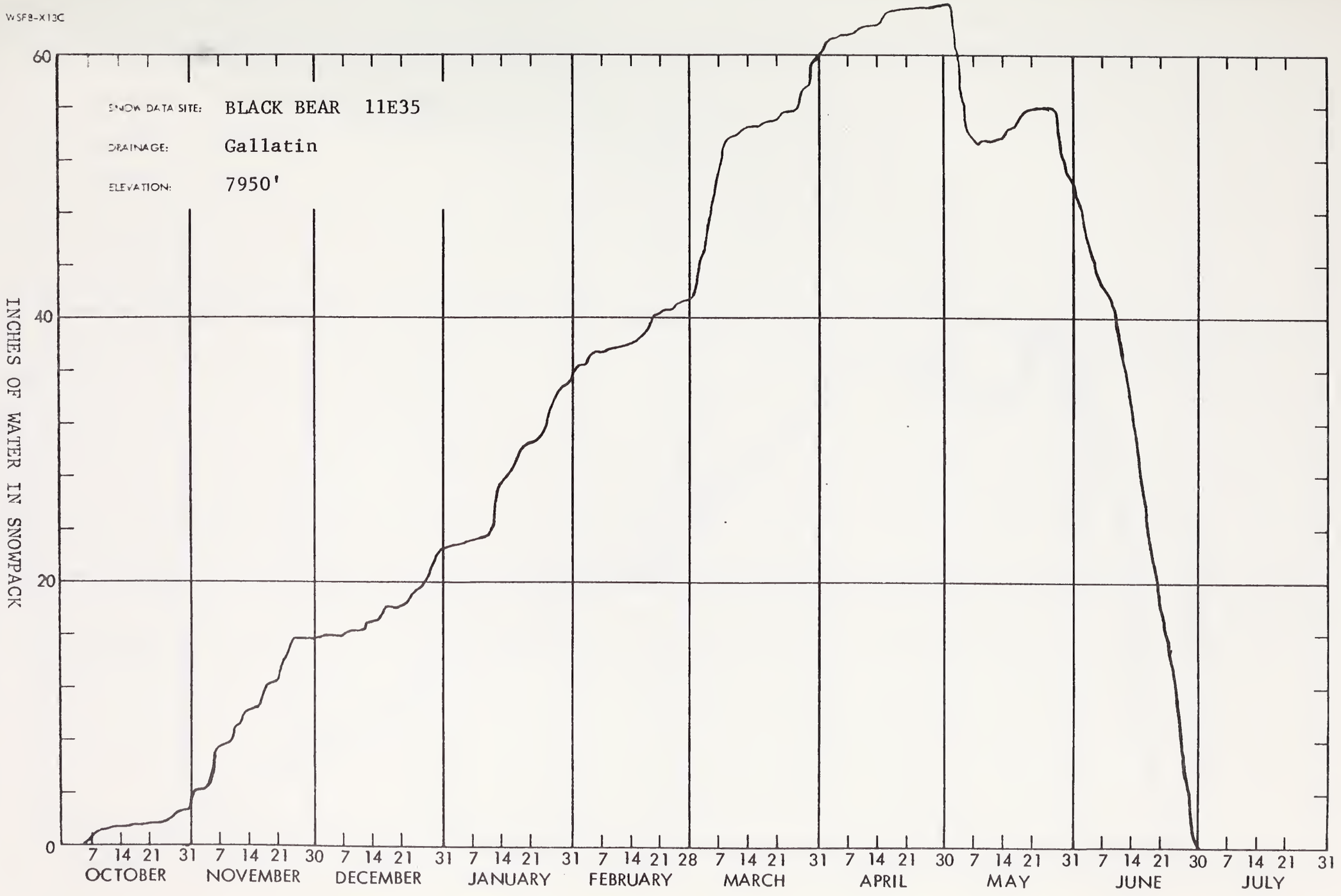
SNOW DATA SITE: BLACK BEAR 11E35
DRAINAGE: Gallatin
ELEVATION: 7950'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

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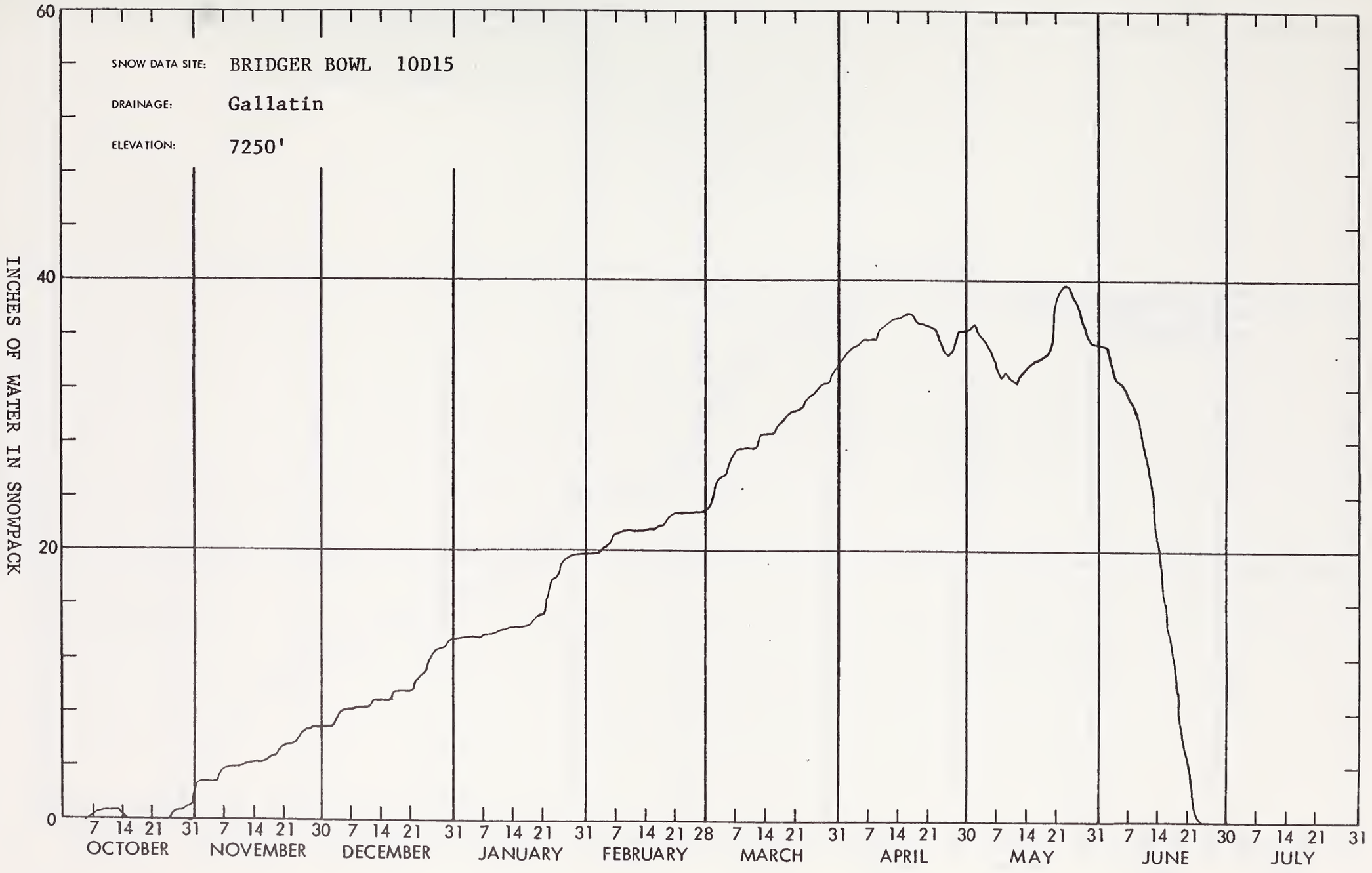
SNOW DATA SITE: BRIDGER BOWL 10D15
DRAINAGE: Gallatin
ELEVATION: 7250'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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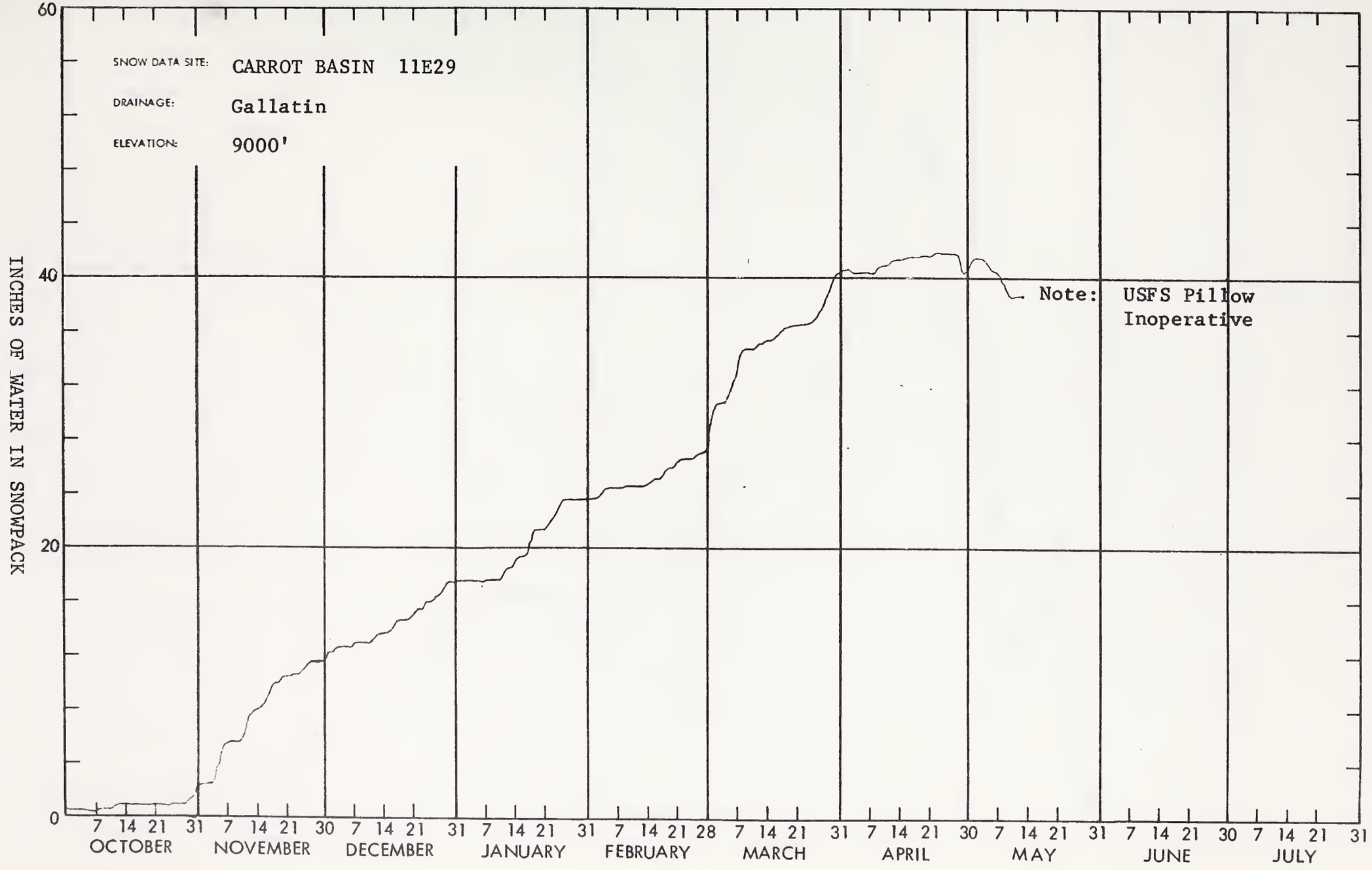
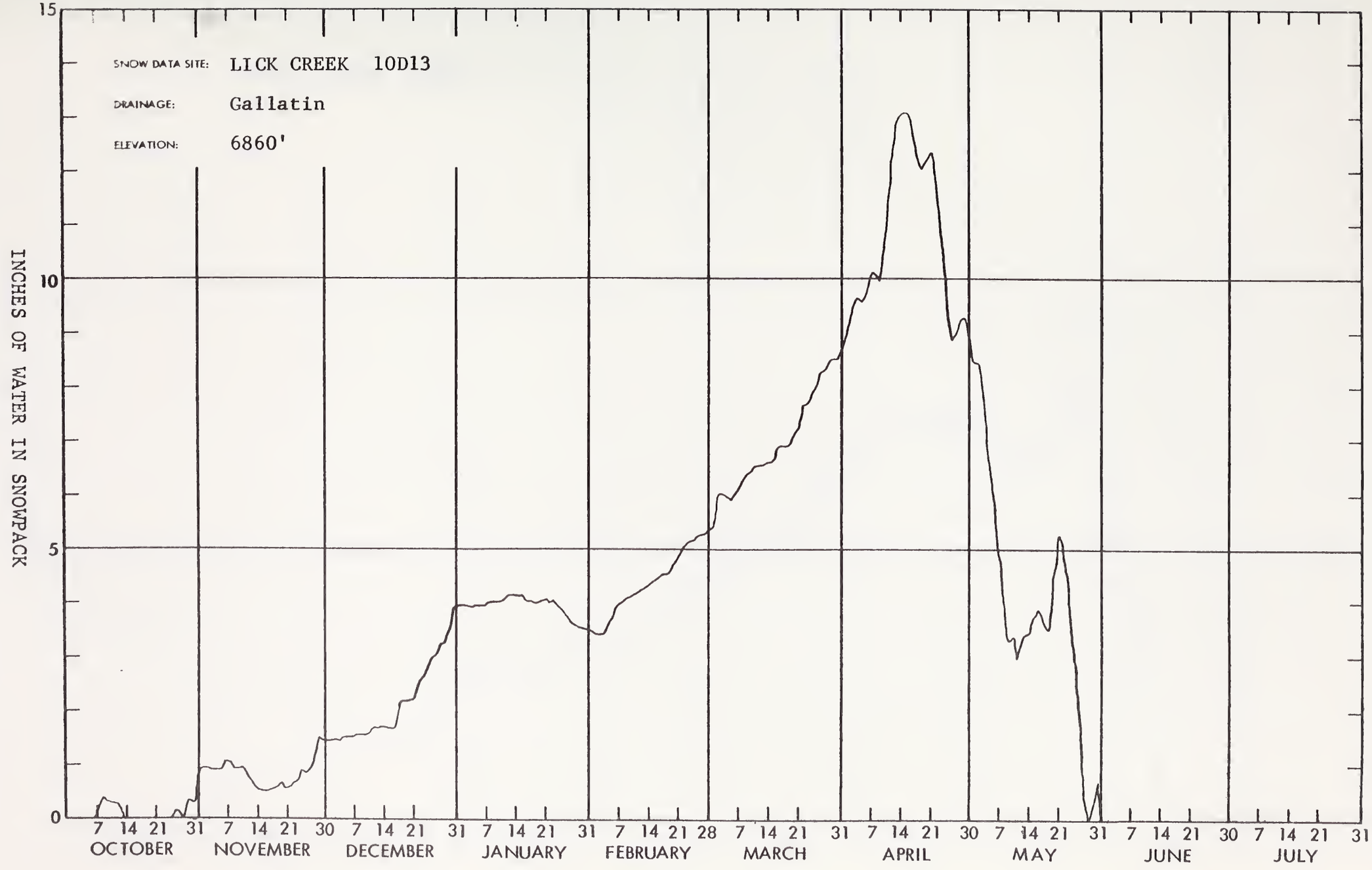
WSFB-X13C


SNOW DATA SITE: CARROT BASIN 11E29
DRAINAGE: Gallatin
ELEVATION: 9000'
Note: USFS Pillow Inoperative
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

WSFB-X-13A


SNOW DATA SITE: LICK CREEK 10D13
DRAINAGE: Gallatin
ELEVATION: 6860'
INCHES OF WATER IN SNOWPACK
15
10
5
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

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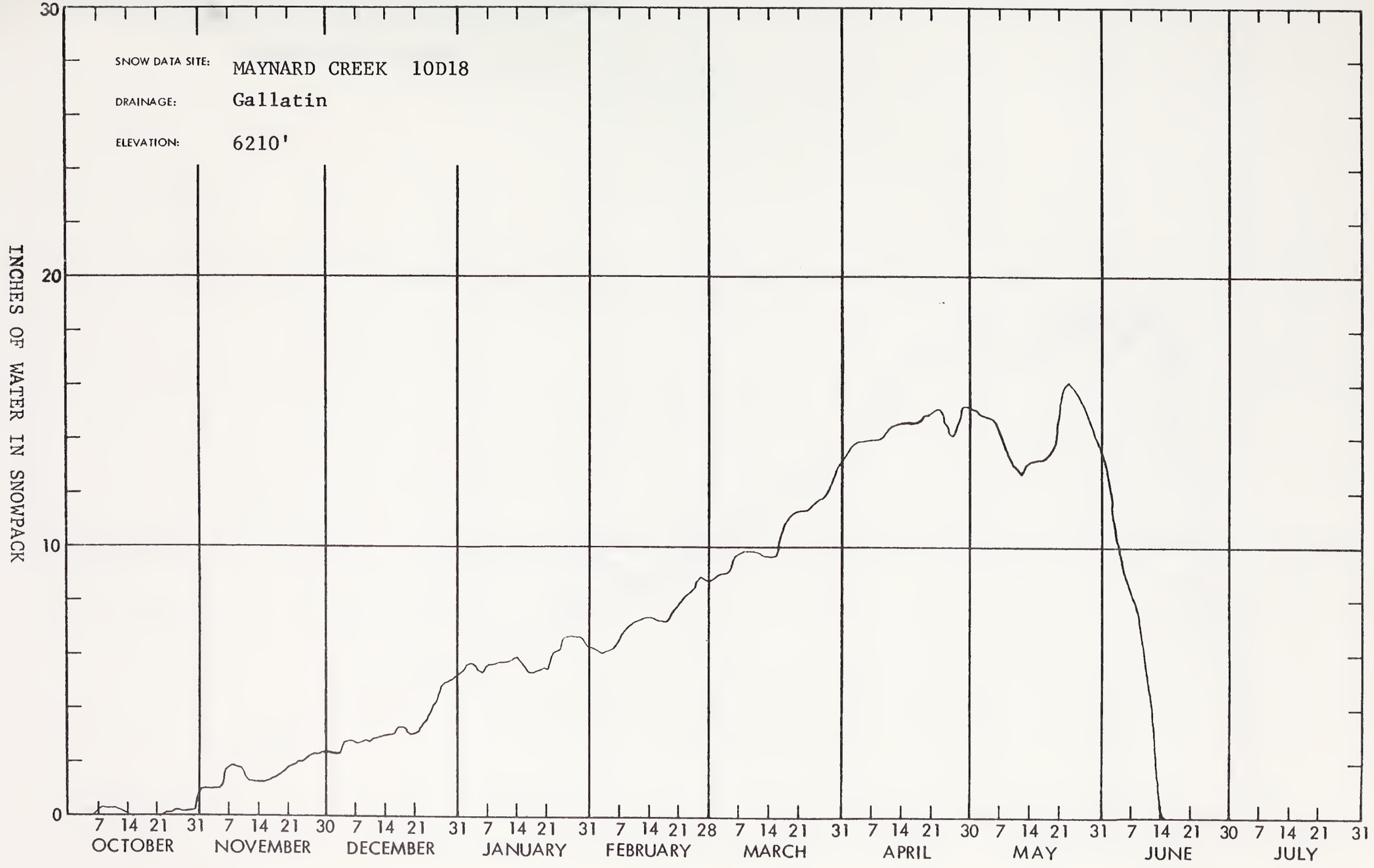
SNOW DATA SITE: MAYNARD CREEK 10D18
DRAINAGE: Gallatin
ELEVATION: 6210'
INCHES OF WATER IN SNOWPACK
30
20
10
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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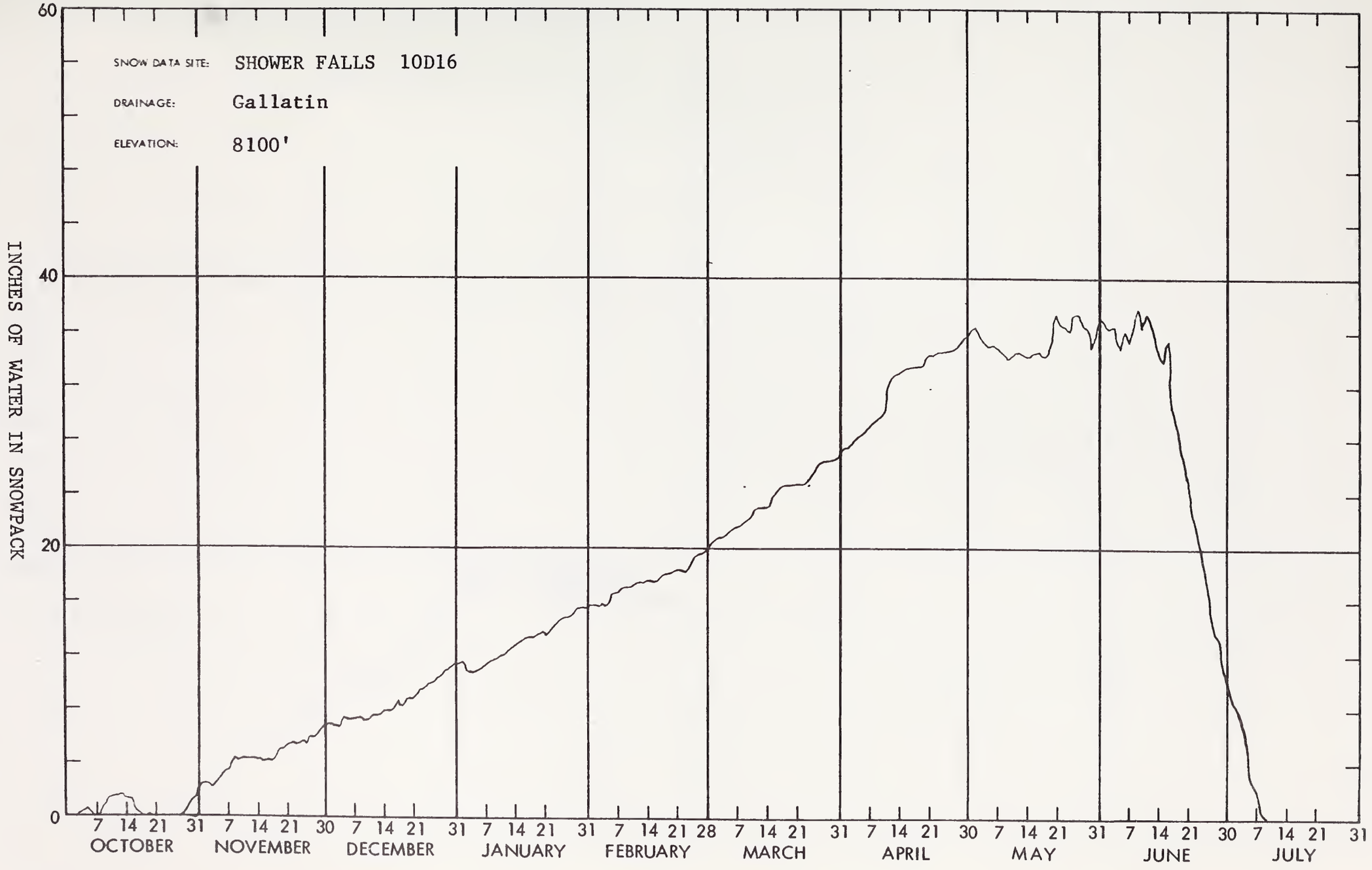
WSFB-X13C


SNOW DATA SITE: SHOWER FALLS 10D16
DRAINAGE: Gallatin
ELEVATION: 8100'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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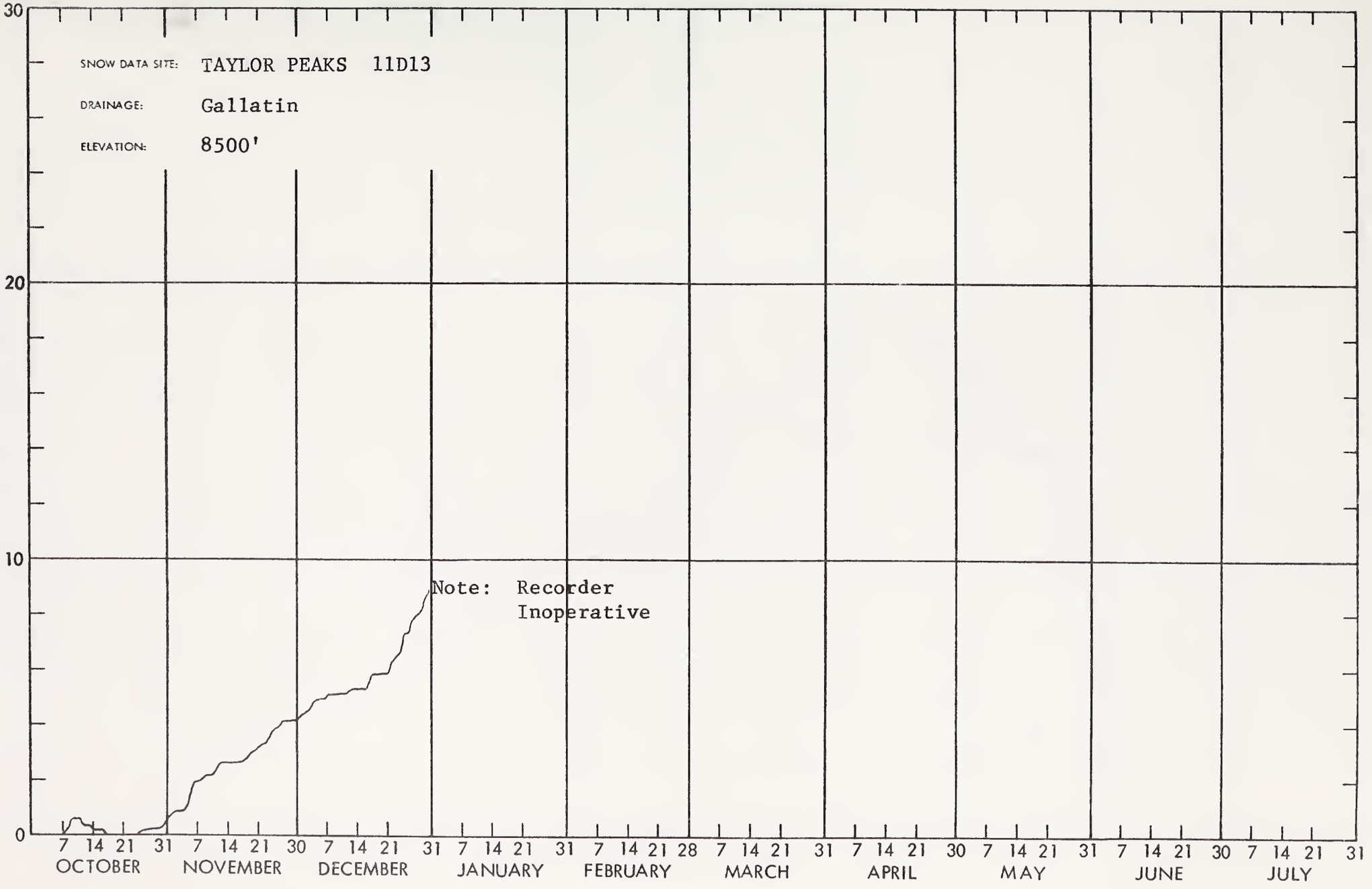
SNOW DATA SITE: TAYLOR PEAKS 11D13
DRAINAGE: Gallatin
ELEVATION: 8500'
INCHES OF WATER IN SNOWPACK
30
20
10
0
Note: Recorder Inoperative
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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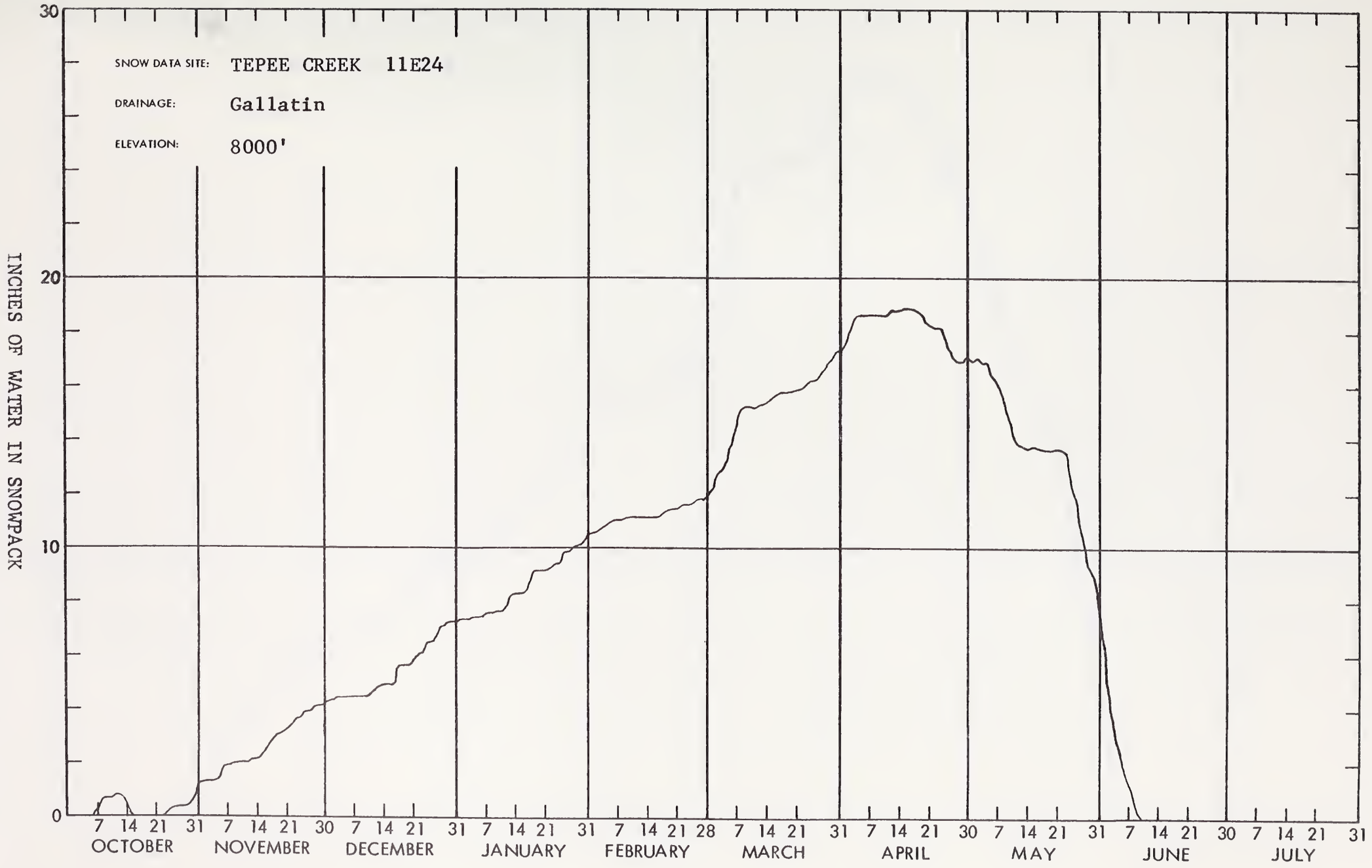
SNOW DATA SITE: TEPEE CREEK 11E24
DRAINAGE: Gallatin
ELEVATION: 8000'
INCHES OF WATER IN SNOWPACK
30
20
10
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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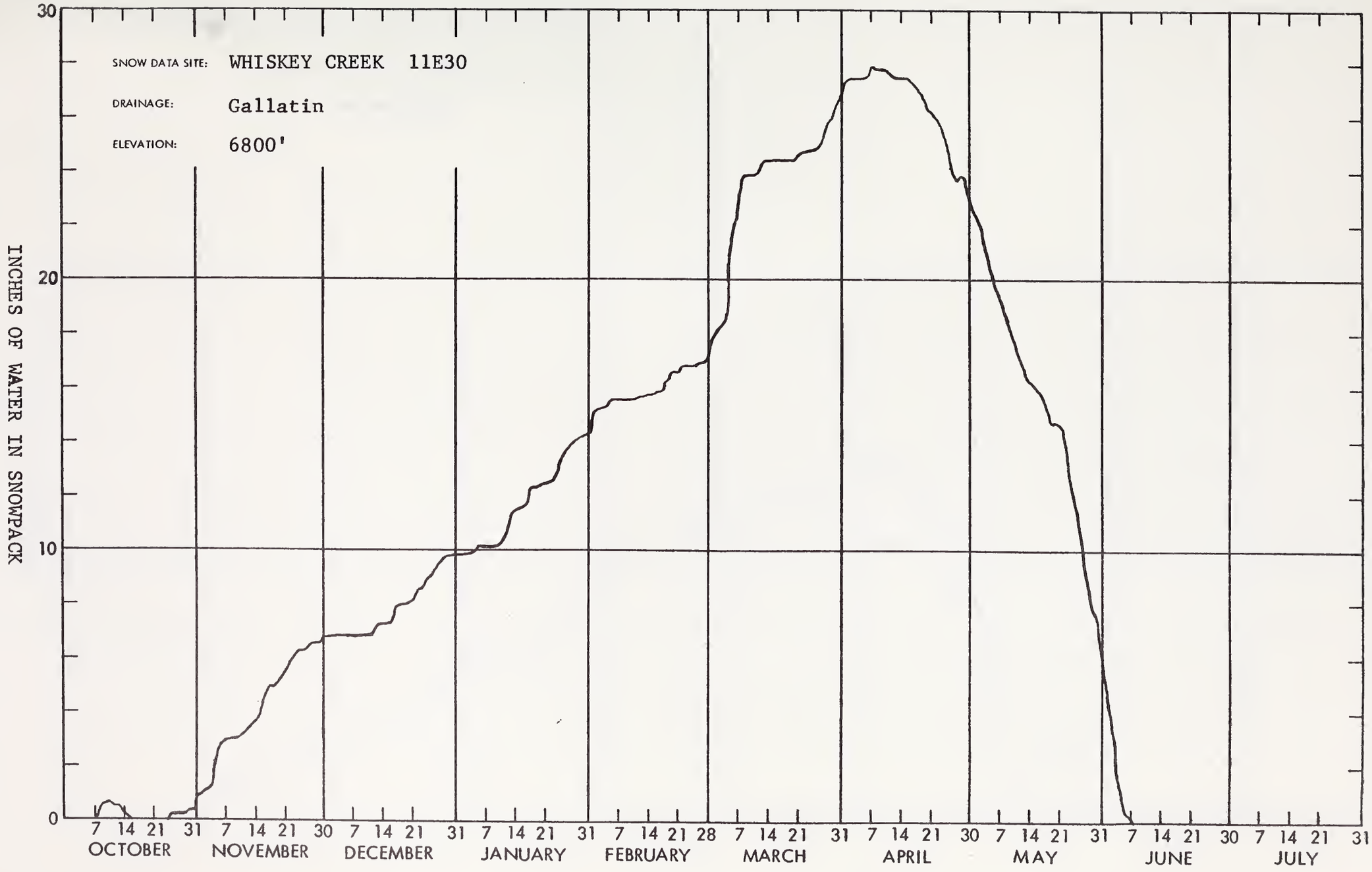
SNOW DATA SITE: WHISKEY CREEK 11E30
DRAINAGE: Gallatin
ELEVATION: 6800'
INCHES OF WATER IN SNOWPACK
30
20
10
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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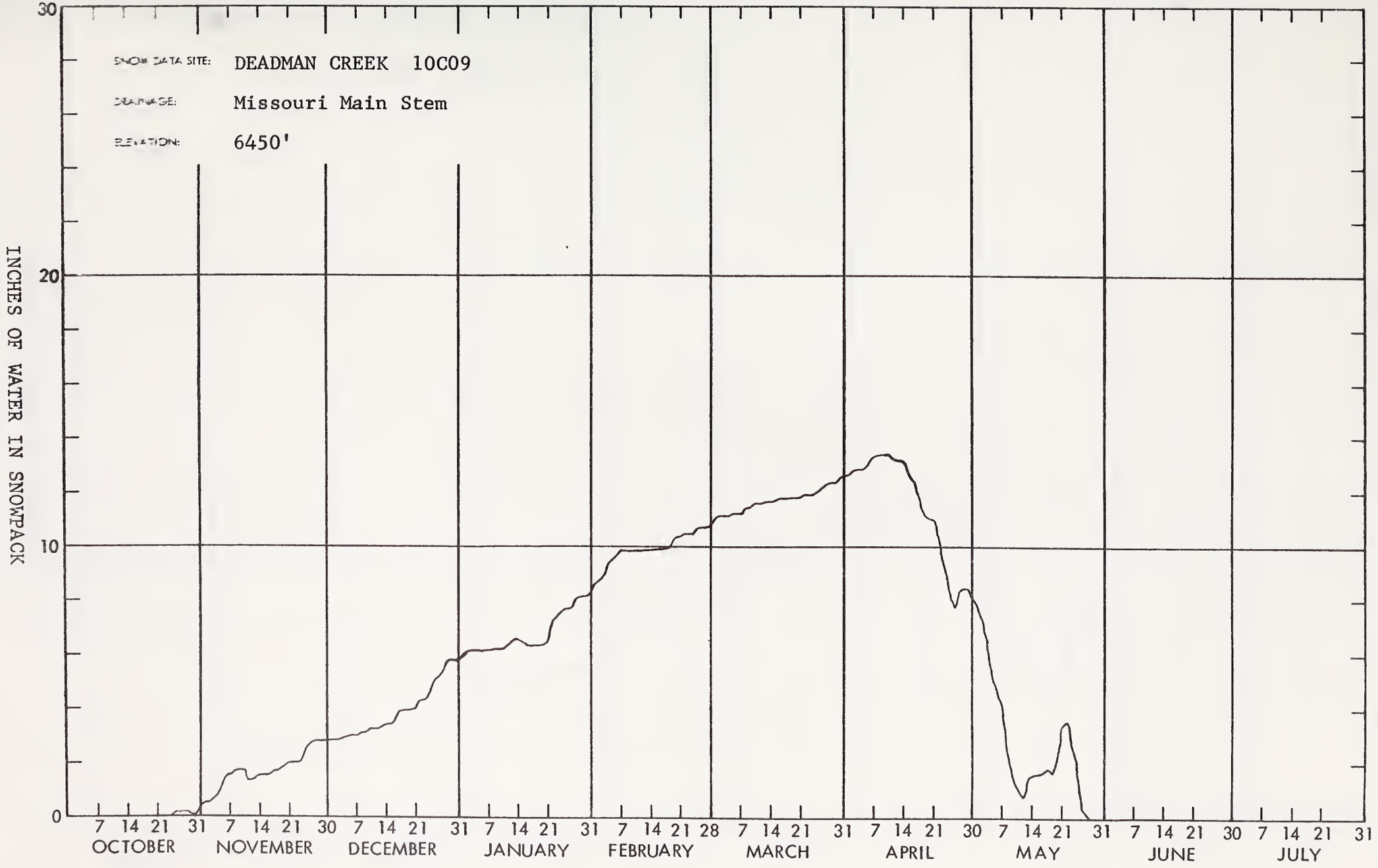
SNOW DATA SITE: DEADMAN CREEK 10C09
DRAINAGE: Missouri Main Stem
ELEVATION: 6450'
INCHES OF WATER IN SNOWPACK
30
20
10
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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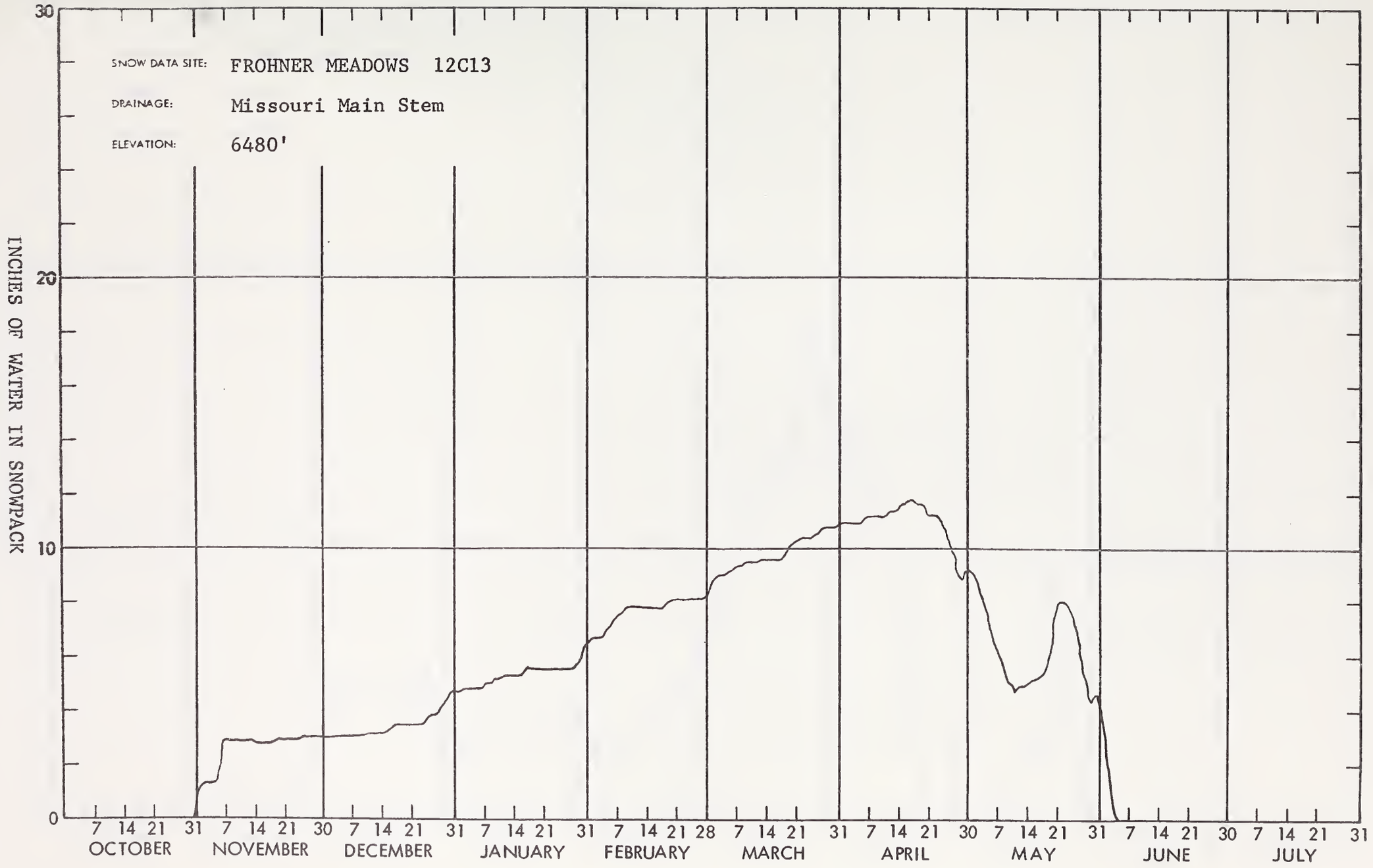
SNOW DATA SITE: FROHNER MEADOWS 12C13
DRAINAGE: Missouri Main Stem
ELEVATION: 6480'
INCHES OF WATER IN SNOWPACK
30
20
10
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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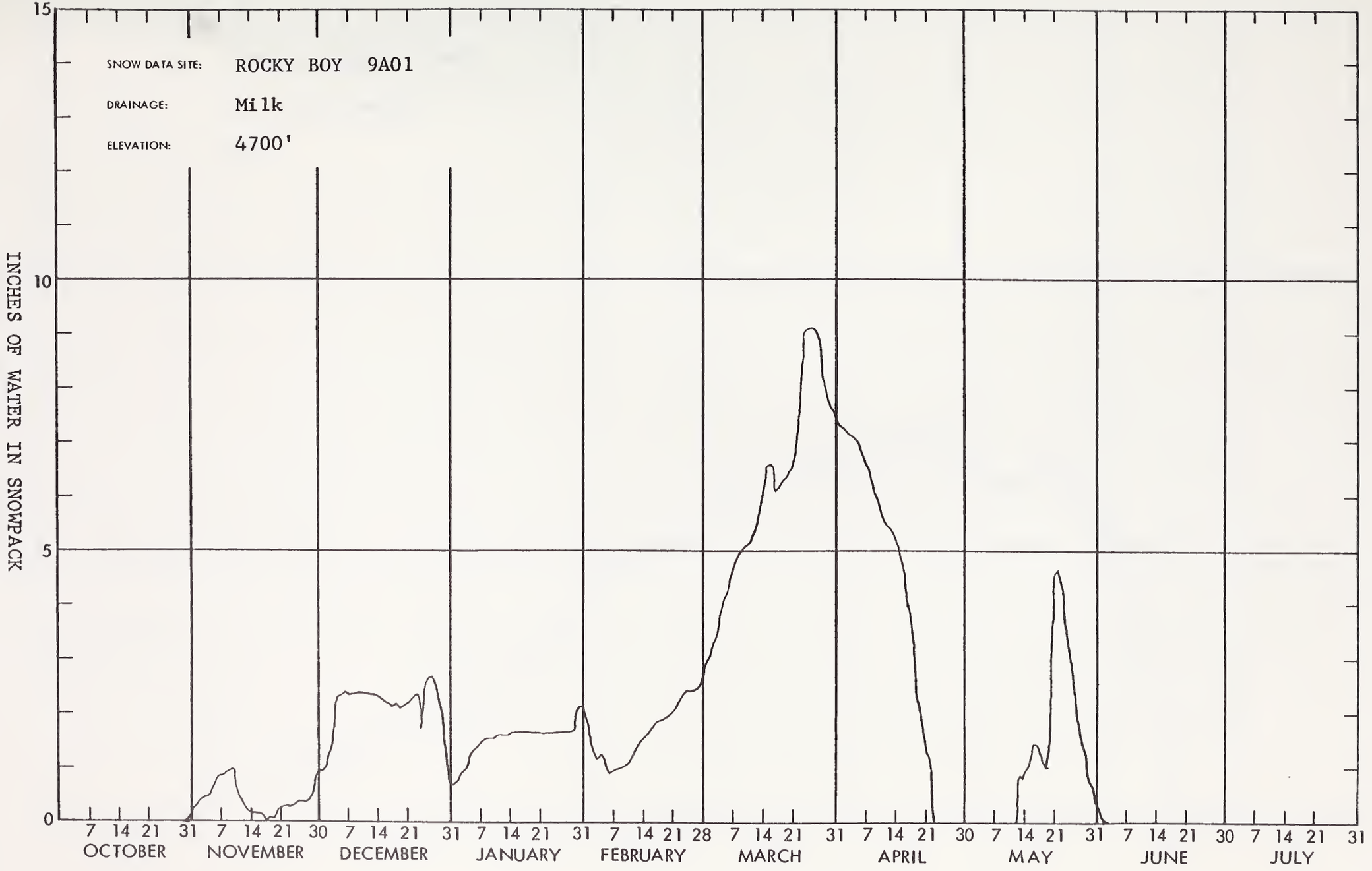
SNOW DATA SITE: ROCKY BOY 9A01
DRAINAGE: Milk
ELEVATION: 4700'
INCHES OF WATER IN SNOWPACK
15
10
5
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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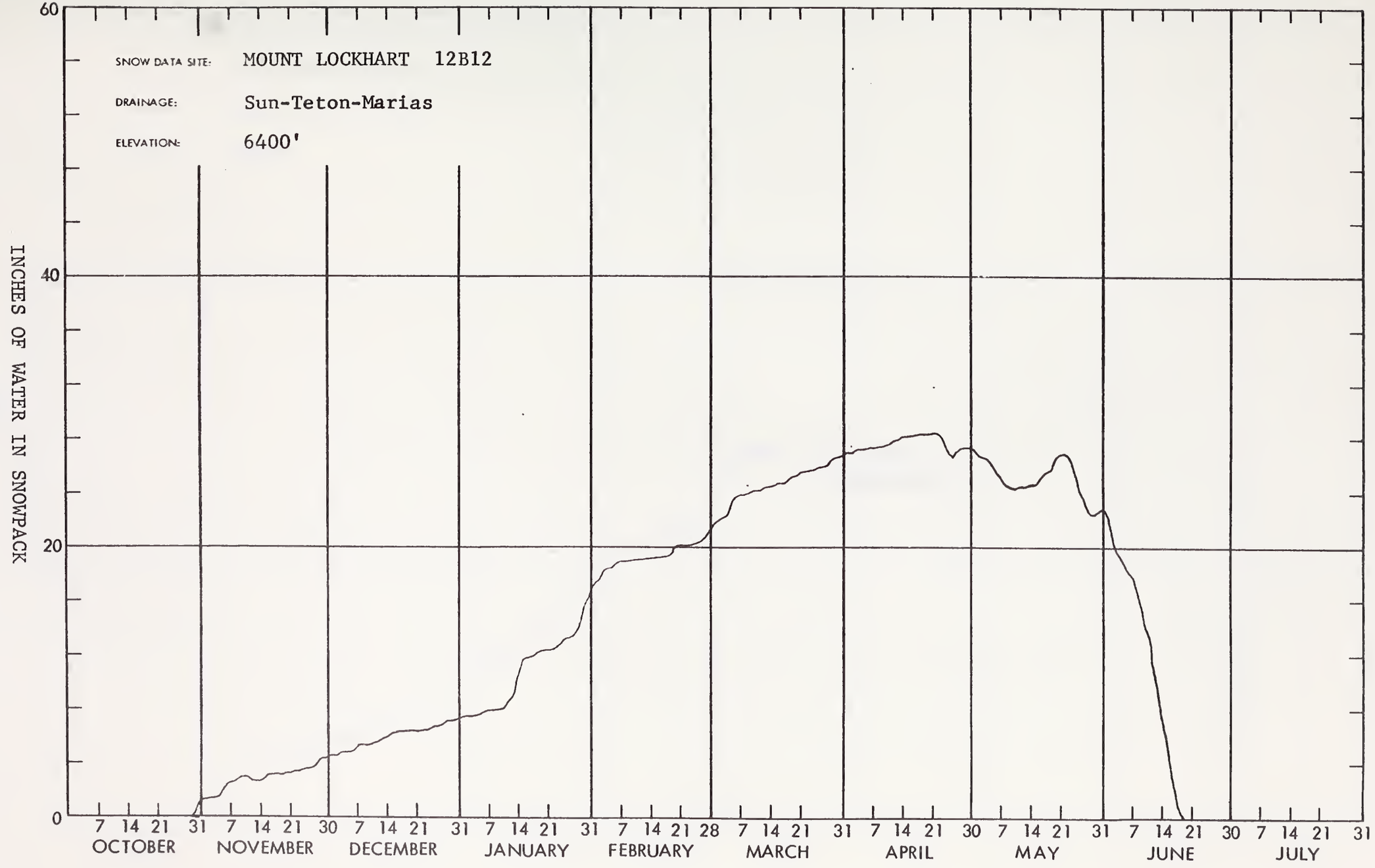
SNOW DATA SITE: MOUNT LOCKHART 12B12
DRAINAGE: Sun-Teton-Marias
ELEVATION: 6400'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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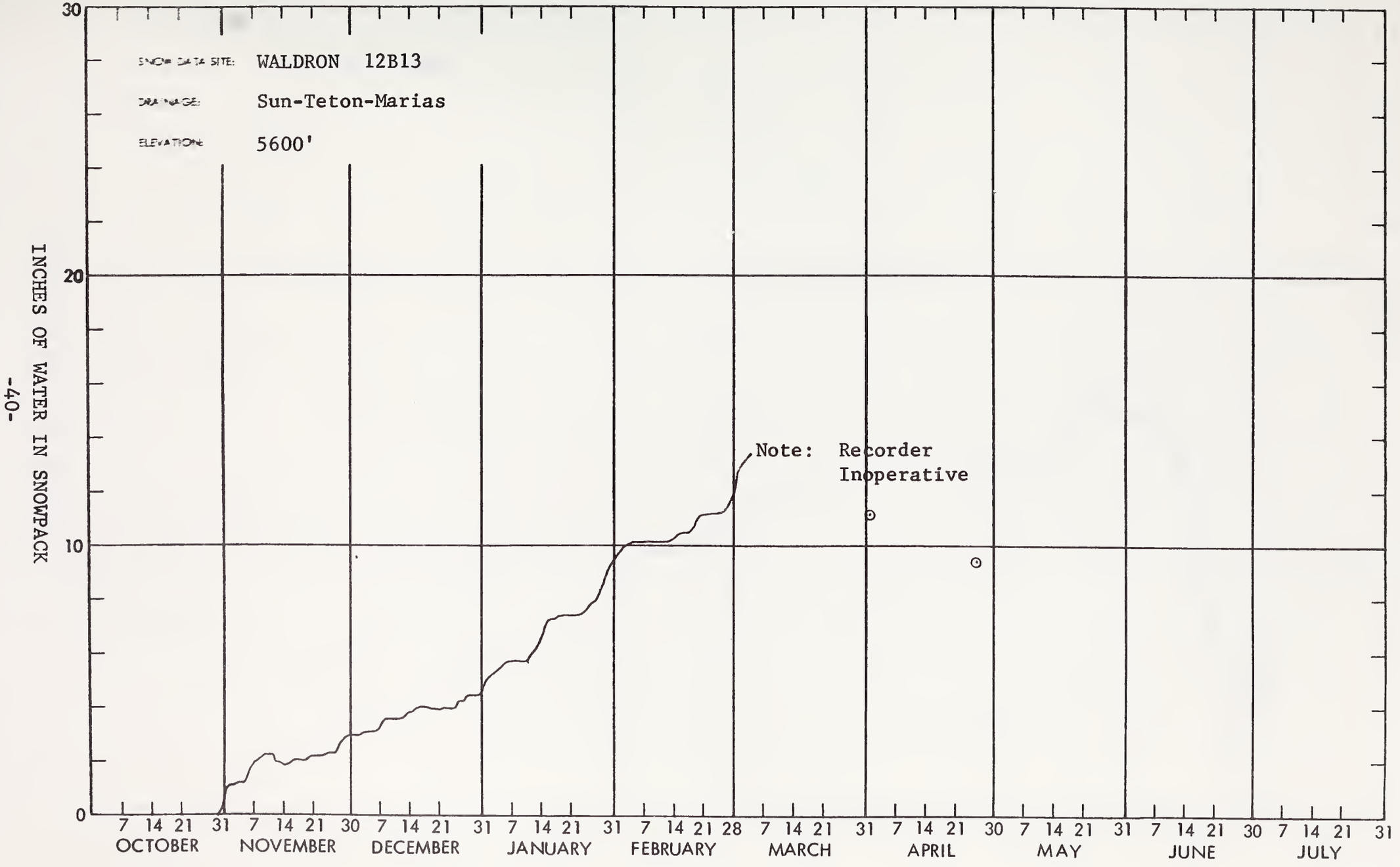
SNOW DATA SITE: WALDRON 12B13
DRAINAGE: Sun-Teton-Marias
ELEVATION: 5600'
INCHES OF WATER IN SNOWPACK
30
20
10
0
Note: Recorder Inoperative
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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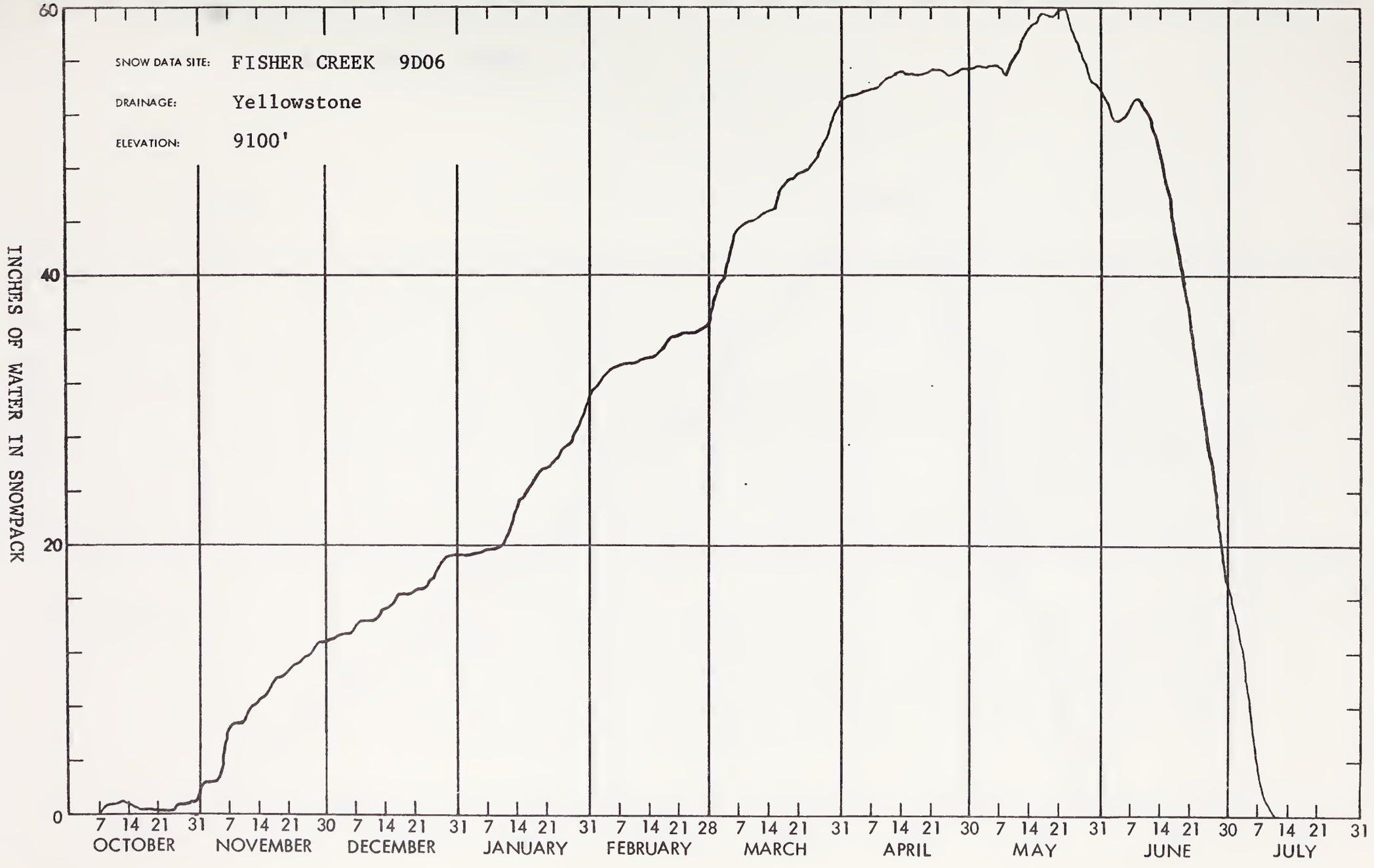
SNOW DATA SITE: FISHER CREEK 9D06
DRAINAGE: Yellowstone
ELEVATION: 9100'
INCHES OF WATER IN SNOWPACK
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40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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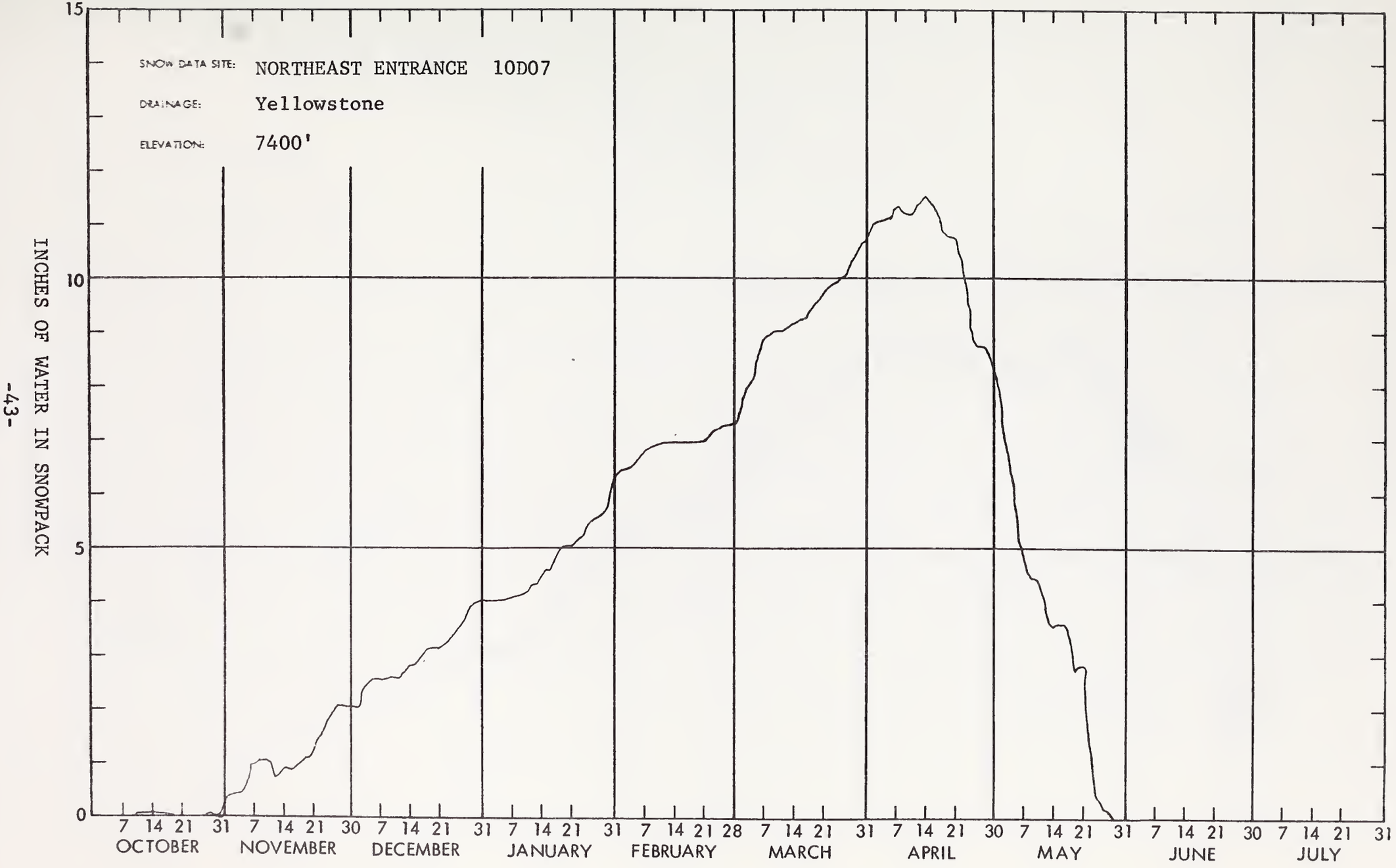
SNOW DATA SITE: NORTHEAST ENTRANCE 10D07
DRAINAGE: Yellowstone
ELEVATION: 7400'
INCHES OF WATER IN SNOWPACK
15
10
5
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
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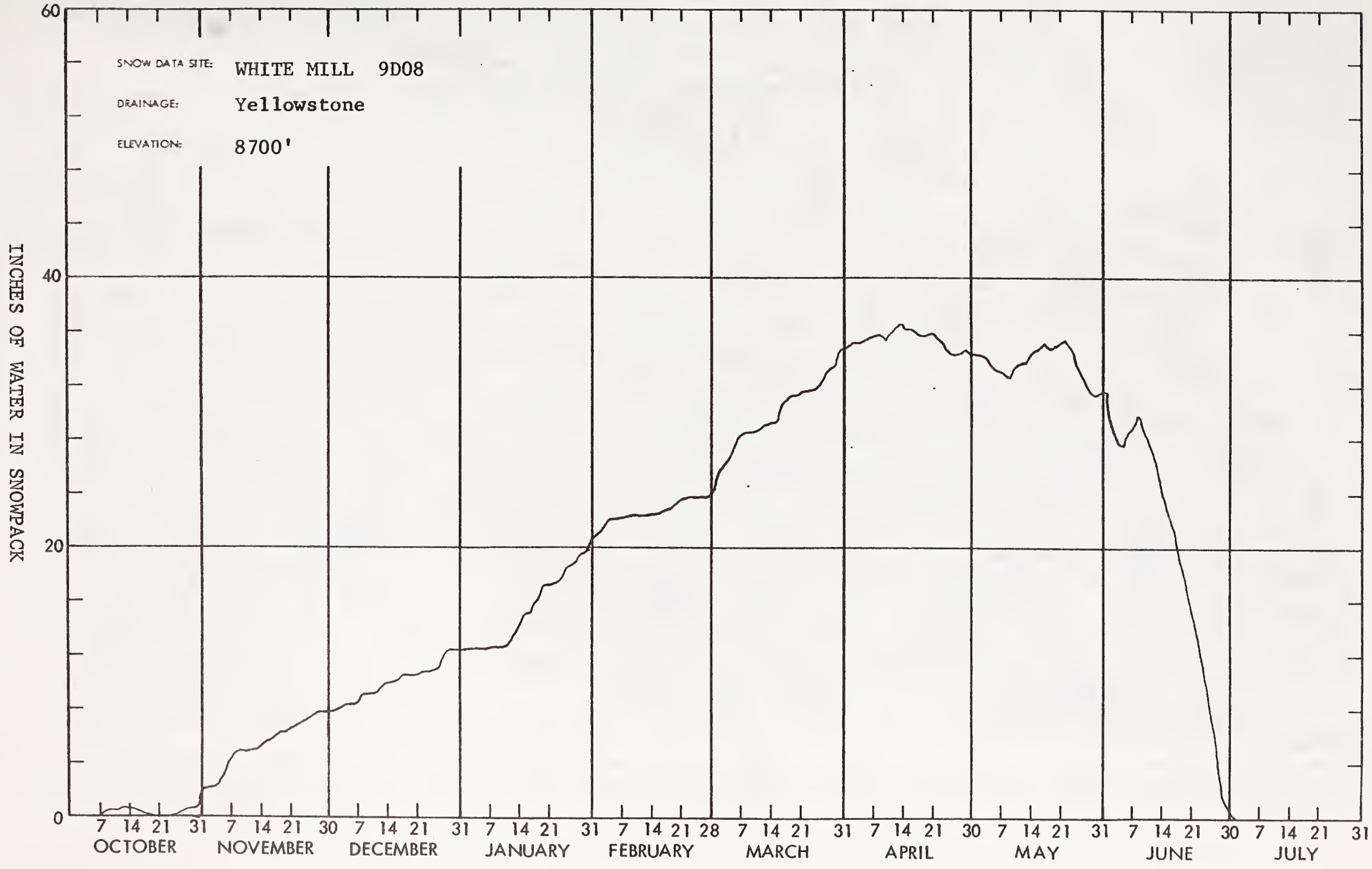
SNOW DATA SITE: WHITE MILL 9D08
DRAINAGE: Yellowstone
ELEVATION: 8700'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
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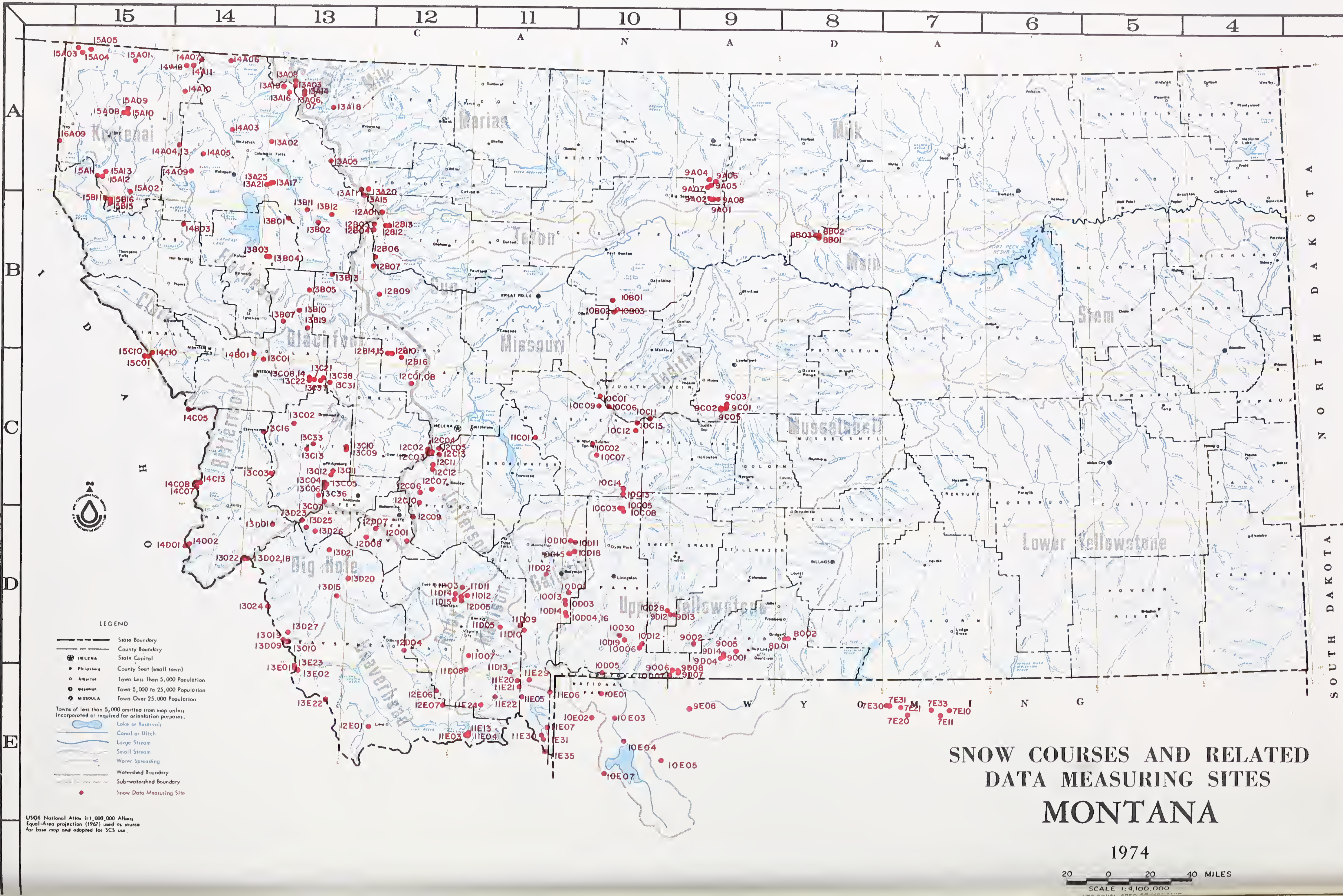

SNOW COURSES AND RELATED DATA MEASURING SITES MONTANA

1974

INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

SNOW COURSES

COLUMBIA RIVER BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
KOOTENAI RIVER								
Bald Eagle Peak	15A11	5700	6	27N	31W	1969	3,4,5,5½,6	1
Banfield Mountain	15A08	5600	4	32N	30W	1969	2,3,4,5,5½,6	1
Bareo Creek	15B11	5500	36	26N	31W	1956	3,4,5,5½	2
Baree Midway	15B16	4600	31	26N	30W	1966	3,4,5,5½	2
Bareo Trail	15B15	3800	5	25N	30W	1965	3,4,5,5½	2
Bristow Creek	15A10	3900	2	32N	30W	1969	2,3,4,5,5½,6	1
Brush Creek	14A04	5000	12	30N	26W	1937	3,4,5	1,2
Brush Creek Timber	14A13	5000	12	30N	26W	1969	3,4,5	1,2
Cedar Grove	15A13	4100	35	28N	31W	1969	2,3,4,5,5½,6	1
Davis Creek	15A04	5400	20	37N	33W	1969	2,3,4,5,5½,6	1
Garver Creek	15A05	4250	18	37N	32W	1969	2,3,4,5,5½,6	1
Graves Creek	14A11	4300	1	36N	25W	1937	3,4,5,5½,6	1
Hawkins Lake	15A03	6450	18	37N	33W	1969	2,3,4,5,5½,6	1
Keeler Creek	16A09	3300	25	30N	35W	1969	3,4,5	1
Lost Soul	15A09	4800	31	33M	29W	1969	2,3,4,5,5½,6	1
Poorman Creek	15A12	5100	5	27N	31W	1969	2,3,4,5,5½,6	1
Red Mountain	15A01	6000	4	36N	29W	1937	3,4,5,5½,6	2
Stahl Peak	14A12	6050	5	36N	25W	1969	3,4,5,5½,6	1
Weasel Divide	14A07	5450	20	37N	24W	1937	3,4,5,5½,6	1
FLATHEAD RIVER								
Bassoo Peak	14B03	5150	11	24N	25W	1961	3,4,5	1,5
Beaver Lake	13A11	5900	31	28N	11W	1964	3,4,5	1
Big Creek	13B03	6750	7	22N	18W	1941	3,4,5, 6	1,5
Camp Misery	13A17	6400	30	28N	18W	1962	3,4,5	1,2
Desert Mountain	13A02	5600	24	31N	19W	1937	1,2,3,4,5, 6	1,2
Fatty Creek	13B04	5500	8	22N	18W	1962	3,4,5, 6	1,5
Flattop Mountain	13A19	6300	12	35N	18W	1968	4	1,6
Griffin Creek Divide	14A09	5150	11	28N	25W	1960	3,4,5	1,5
Gunsight Lake	13B12	6300	30	26N	13W	1964	3,4,5	1
Hell Roaring Divide	14A03	5770	35	32N	22W	1942	1,2,3,4,5,5½,6	2
Holbrook	13B13	4530	18	21M	13W	1951	1,2,3,4,5	1
Kishenehn	14A06	3890	14	37N	22W	1954	3,4	6
Logan Creek	14A05	4300	34	30M	24W	1937	3,4,5	1,2
Marias Pass	13A05	5250	34	30N	14W	1934	1,2,3,4,5	3
Mineral Creek	13A16	4000	29	35M	17W	1957	3,4,5	6
Noisy Basin	13A25	6040	25	28N	19W	1974	3,4,5	1,2
Noisy Creek	13A21	3600	35	28N	19W	1970	3,4,5	1,2
North Fork Jocko	13B07	6330	3	17N	17W	1941	3,4,5,5½,6	1,5
Spotted Bear Mountain	13B02	7000	23	25N	15W	1948	1,2,3,4,5	1
Trinkus Lake	13B01	6100	9	25N	17W	1948	3,4,5	1
Twin Creeks	13B11	3580	25	26N	16W	1951	1,2,3,4,5	1
Upper Nolland Lake	13B05	6200	28	20N	15W	1948	3,4,5	1
CLARK FORK RIVER								
Black Pine	13C13	7100	26	8N	15W	1959	1,2,3,4,5,5½,6	1
Combination	13C33	5600	7	8N	14W	1971	1,2,3,4,5	1
Copper Bottom	12B16	5200	15	15N	8W	1971	3,4,5	1,2
Copper Camp	12B14	6950	3	15N	9W	1971	3,4,5	1,2
Copper Creek	12B10	5700	1	15N	9W	1962	3,4,5	1,2
Copper Lake Creek	12B15	6100	3	15M	9W	1971	3,4,5	1,2
Coyote Mill	13B10	4200	12	18N	16W	1967	1,2,3,4,5	1,2
El Dorado Mine	13C09	7800	23	8N	12W	1949	3,4	1
Fred Burr Pass	13C11	8000	12	6M	13W	1957	3,4,5	1
Gold Creek Lake	13C10	7200	14	8N	12W	1949	3,4	1
Heart Lake Trail	14C10	4800	11	14N	27W	1965	1,2,3,4,5,5½,6	1,2
Hoodoo Basin	15C10	6000	17	14M	27W	1967	1,2,3,4,5,5½,6	1,2
Hoodoo Creek	15C01	5900	16	14N	27W	1937	1,2,3,4,5,5½,6	1,2
Intergaard	13C04	6450	6	5M	13W	1936	2,3,4,5	4
Lubrecht Flume	13C38	4800	13	13N	14W	1971	1,2,3,4,5	8
Lubrecht Forest No. 3	13C21	5450	19	13N	14W	1951	1,2,3,4,5	8
Lubrecht Forest No. 4	13C22	4650	23	13M	15W	1951	1,2,3,4,5	8
Lubrecht Forest No. 6	13C08	4040	11	13N	15W	1951	1,2,3,4,5	8
Lubrecht Hydroplot	13C37	4200	22	13M	14W	1971	1,2,3,4,5	8
North Fork Elk Creek	13C31	6250	20	13N	13W	1968	1,2,3,4,5,5½,6	8
Peterson Meadows	13C36	7200	2	4M	14W	1971	1,2,3,4,5	2
Red Lion	13C12	7100	22	6N	13W	1958	3,4,5	1
Skalkaho Summit	13C03	7260	30	6M	17W	1937	3,4,5,5½,6	1
Slide Rock Mountain	13C02	7100	35	10N	16W	1937	3,4,5	1
Southern Cross	13C05	6500	8	5N	13W	1936	2,3,4	4
Storm Lake	13C07	7780	19	4N	13W	1939	1,2,3,4,5	1
Stuart Mill	13C06	6500	19	5N	13W	1936	2,3,4	4
Stuart Mountain	13C01	7400	6	14M	18W	1936	3,4,5,5½,6	8
TV Mountain	14B01	6800	33	15N	19W	1956	1,2,3,4,5,5½,6	8
BITTERROOT RIVER								
Ambrose	13C16	6480	28	9N	18W	1960	3,4,5	1
East Fork R. S.	13D01	5400	16	2N	17W	1937	3,4	1
Gibbons Pass	13D02	7100	4	2S	19W	1934	1,2,3,4,5,5½,6	1,3
Last Horse	14C07	5940	5	4M	23W	1960	3,4,5,5½,6	1
Nez Perce Camp	14D02	5580	19	1S	23W	1937	3,4,5	1
Nez Perce Pass	14D01	6570	25	1S	24W	1937	3,4,5	1
Saddle Mountain	13D22	7940	5	2S	19W	1965	1,2,3,4,5,5½,6	1
Twelvemile Creek	14C13	5600	34	5N	23W	1968	1,2,3,4,5,5½,6	1
Twin Lakes	14C08	6510	32	5N	23W	1960	1,2,3,4,5,5½,6	1

HUDSON BAY BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
ST. MARY RIVER								
Hudson Bay Divide	13A18	5800	24	34N	14W	1962	3,4,5	3
Iceberg Lake No. 3	13A03	5600	1	35N	17W	1922	5	3,9
Josephine Lower No. 9	13A14	4900	22	35M	16W	1955	5	3,9
Mount Allen No. 7	13A07	5700	27	35N	16W	1922	5	3,9
Piegan Pass No. 6	13A06	5500	27	35N	16W	1922	5	3,9
Ptarmigan No. 8	13A08	5800	36	36N	17W	1937	5	3,9

MISSOURI RIVER BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
BEAVERHEAD RIVER								
Bloody Dick	13D10	7600	12	8S	16W	1968	3,4,5	1
Cartor Creek	12D04	7400	22	8S	7W	1963	2,3,4	11
Dad Creek Lake	13E22	8400	24	12S	13W	1965	3,4,5	1
Elk Horn Springs	13D15	7800	21	4S	12W	1935	3,4,5	3
Gold Stone	13D09	8100	11	8S	16W	1968	3,4,5	1
Lakeview Canyon	11E04	6930	26	14S	2W	1948	1,2,3,4,5	10
Lakeview Ridge	11E03	7400	27	14S	2W	1948	1,2,3,4,5	10
Lemhi Pass	13E01	7480	9	10S	15W	1948	3,4	1
Lemhi Ridge	13E23	8100	4	10S	15W	1967	3,4	1
Trail Creek	13E02	7090	15	10S	15W	1948	3,4	1
White Pine Ridge	12E01	8850	18	14S	9W	1948	3,4,5	1
RUBY RIVER								
Branham Lakes	11D14	8850	5	4S	3W	1967	3,4,5	1,12
Clover Meadow	11D08	8600	28	9S	2W	1963	3,4,5	1
Otvido	12E07	7900	14	12S	4W	1963	3,4,5	1
Middle Mill Creek	11D15	7850	17	4S	3W	1967	3,4,5	1,12
Notch	12E06	8500	18	11S	4W	1963	3,4,5	1
Smuggler Mine	12D05	6960	24	4S	4W	1967	3,4,5	1,12
BIG HOLE RIVER								
Abundance Lake	13D20	8800	7	3S	11W	1963	3,4,5	1
Bull Mountain	12D08	7500	3	1N	10W	1974	1,2,3,4,5	2
Calvert Creek	13D26	6450	34	2N	14W	1969	3,4,5	1
Darkhorse Lake	13D19	8600	4	8S	16W	1963	3,4,5	1
Fleecer Ridge	12D07	6600	18	2M	9W	1974	1,2,3,4,5	2
Foothen	13D21	8280	11	1S	13W	1963	3,4,5	1
Jahnke Lake Trail	13D27	7200	24	7S	16W	1969	3,4,5	1
Mudd Lake	13D25	7650	24	2N	15W	1969	3,4,5	1
Palisade Creek	13D23	8250	3	2N	15W	1967	4,5	1
Slag-A-Melt Lake	13D24	8750	29	5S	17W	1968	3,4,5	1
JEFFERSON RIVER								
Berry Meadow	12C07	7300	8	5N	5W	1962	3,4	1
Copper Mountain	12C09	7700	13	3N	7W	1966	2,3,4,5,5½	4
Nez Perce Creek	12C10	6500	16	4M	6W	1967	2,3,4,5	4
Picnic Grounds	12C06	6500	21	5N	6W	1941	2,3,4	4
Pipestone Pass	12D01	7200	10	1N	7W	1938	1,2,3,4,5	1
Rocker Peak	12C11	8000	17	7N	5W	1968	1,2,3,4,5	1
Uncle Sam Gulch	12C12	6500	32	7N	5W	1968	3,4,5	1
MADISON RIVER								
Black Bear	11E35	7950	27	15S	5E	1972	1,2,3,4,5,5½,6	1,2
Call Road	11C07	8050	21	8S	2W	1962	3,4,5	1
Four Mile	11C12	6900	5	4S	2W	1965	3,4,5	1
Nebgen Dam	11E05	6550	22	11S	3E	1934	1,2,3,4,5	3
Jack Creek	11D05	7500	13	6S	1E	1961	3,4	1
Lake Creek	11E22	6100	27	11S	1E	1965	2,3,4,5	2
Lower Twin	11D11	7900	12	4S	3W	1965	3,4,5	1
Madison Plateau	11E31	7750	28	14S	5E	1968	1,2,3,4,5,5½,6	1,2
North Meadow	11D03	7500	24	3S	3W	1961	3,4,5	1
Potomageton Park	11E21	7150	33	10S	3E	1965	3,4,5	2
Sentinel Creek	11E20	8300	17	10S	3E	1965	3,4,5	2
Tepee Creek	11E24	8000	15	12S	1W	1965	2,3,4,5	2
West Yellowstone	11E07	6700	34	13S	5E	1934	1,2,3,4,5	1,3,6
Whiskey Creek	11E30	6800	19	14S	5E	1967	1,2,3,4,5,5½,6	2
GALLATIN RIVER								
Arch Falls	10D14	7350	3	5S	6E	1963	1,2,3,4,5,5½,6	1
Bear Basin	11D09	8150	9	6S	3E	1963	3,4,5	1
Bridger Bowl	10D15	7250	25	1N	6E	1965	1,2,3,4,5,5½,6	1
Carrot Basin	11E29	9000	18	10S	4E	1967	1,2,3,4,5	2
Devils Slide	10D04	8100	14	5S	6E	1935	1,2,3,4,5,5½,6	1
Hood Meadow	10D03	6600	22	4S	6E	1935	1,2,3,4,5,5½,6	1
Lick Creek	10D13	6860	10	4S	6E	1964	1,2,3,4,5,5½,6	1
Little Park	11D10	7400	22	6S	3E	1963	3,4,5	1
Maynard Creek	10D18	6210	19	1M	7E	1967	1,2,3,4,5,5½,6	1
New World	10D01	6700	24	3S	6E	1939	2,3,4	1
Shower Falls	10D16	8100	14	5S	6E	1966	1,2,3,4,5,5½,6	1
Taylor Peaks	11D13	8500	26	9S	2E	1967	3,4,5	1
Twenty-One Mile	11E06	7150	1	11S	5E	1934	1,2,3,4,5	3
MISSOURI RIVER MAIN STEM								
Big Coulee	10B03	5100	10	19N	9E	1974	1,2,3,4,5	1,12
Boulder Mountain	11C01	7950	1	9N	3E	1963	3,4,5	1
Chessman Reservoir	12C05	6200	2	8N	5W	1936	1,2,3,4,5	3
Deadman Creek	10C09	6450	23	12N	8E	1966	1,2,3,4,5,5½,6	1
Elk Peak	10C07	8000	10	8N	8E	1963	3,4,5	1
Frohner Meadows	12C13	6500	23	8N	5W	1971	1,2,3,4,5	1
Grasshopper	10C02	7000	19	9N	8E	1938	3,4,5	1
Highwood Divide	10B02	5650	16	19N	9E	1974	1,2,3,4,5	1,12
Highwood Station	10B01	4600	20	20N	9E	1974	1,2,3,4,5	1,12
Kings Hill	10C01	7500	34	13N	8E	1934	3,4,5,5½,6	1,3
Stemple Pass	12C01	6600	16	13N	7W	1934	3,4,5	3
Ten Mile Lower	12C02	6600	12	8N	6W	1935	1,2,3,4,5	3
Ten Mile Middle	12C03	6800	13	8N	6W	1934	1,2,3,4,5	3
Ton Mile Upper	12C04	8000	19	8N	5W	1935	1,2,3,4,5	3
SUN-TETON-MARIAS RIVERS								
Badger Pass	13A15	6900	4	27N	11W	1964	1,2,3,4,5	1
Blue Lake	13A20	5900	25	28N	11W	1969	1,2,3,4,5	1
Cabin Creek	12B06	5200	33	23N	10W	1949	3,4,5	2
Five-Bull	12B09	5700	25	20N	10W	1948	3,4,5	1
Freight Creek	12A01	6000	13	26N	10W	1948	3,4,5	1
Goat Mountain	12B07	7000	20	22N	10W	1934	3,4,5	3
Mount Lockhart	12B12	6400	18	25M	9W	1969	1,2,3,4,5,5½,6	2
Waldron	12B13	5600	17	25N	9W	1969	1,2,3,4,5,5½,6	2
Wrong Creek	12B04	5700	32	25N	10W	1949	3,4,5	2
Wrong Ridge	12B03	6800	17	25M	10W	1949	3,4,5	2
JUDITH RIVER								
Avalanche	9C02	7100	24	12N	17E	1966	3,4,5	1
Big Snowy	9C05	7150	25	12N	17E	1971	3,4,5	1
Crystal Lake	9C01	6100	19	12N	18E	1941	3,4,5	1
Rock Creek	9C03	5600	8	12N	18E	1966	3,4,5	1
Spur Park	10C06	8100	20	12N	9E	1963	1,2,3,4,5,5½,6	1
MUSSELSHELL RIVER								
Daisy Peak	10C15	7600	34	11N	11E	1969	3,4,5	2
Eagle Creek	10C13	7000	2	5N	10E	1969	3,4,5	2
Forest Lake	10C14	6400	26	6N	10E	1969	3,4,5	2
Haymaker	10C11	8050	16	11M	12E	1969	3,4,5	2
Johnson Park	10C12	6450	16	10N	11E	1969	3,4,5	2
MILK RIVER								
Bear Paw Ski Area	9A02	5200	21	28N	16E	1967	1,2,3,4,5	1,7
Boxelder Creek	9A08	5100	24	28N	16E	1973	1,2,3,4,5	1,7
King Creek Saddle	8B02	4550	10	25N	24E	1971	1,2,3,4,5	5
King Springs	8B03	4150	9	25N	24E	1971	1,2,3,4,5	5
Kiwanis Camp	9A04	3720	6	29N	16E	1973	1,2,3,4,5	1,7
Mission Mountain	8B01	5050	15	25N	24E	1971	1,2,3,4,5	5
Rocky Boy	9A01	4700	22	28N	16E	1941	1,2,3,4,5	1,7
Sucker Creek	9A06	3960	11	29N	16E	1973	1,2,3,4,5	1,7
Taylor Road	9A07	4080	19	29N	16E	1973	1,2,3,4,5	1,7
UPPER YELLOWSTONE RIVER								
Bald Ridge	10C05	7500	11	4N	10E	1961	3,4,5	1
Bot Sota	9D14	7750	35	7S	18E	1973	3,4,5	1
Camp Senia	9001	7890	2	8S	18E	1937	3,4,5,5½,6	1
Colley Creek	10D30	6300	34	6S	10E	1973	3,4,5	1
Cooke Station	9D07	8150	19	9S	15E	1966	3,4,5,5½,6	1,2
Crevice Mountain	10D05	8400	22	9S	9E	1935	3,4	2
Fisher Creek	9D06	9100	11	9S	14E	1966	3,4,5,5½,6	1,2
Grizzly Peak	9D05	8400	26	7S	19E	1961	1,2,3,4,5	1,2
Independence	10D06	7850	21	7S	12E	1940	3,4,5	1
Mill Creek	10D19	7500	6	7S	11E	1967	3,4,5	2
Monument Peak	10D12	8800	16	7S	12E	1961	3,4,5	1
Northeast Entrance	10D07	7400	33	9S	14E	1937	1,2,3,4,5,5½,6	1,6
Picket Pin Lower	9D13	6200	1	5S	14E	1972	1,2,3,4,5	13
Picket Pin Middle	9D12	7250	3	5S	14E	1972	1,2,3,4,5	13
Picket Pin Upper	10D28	8500	32	4S	14E	1972	1,2,3,4,5	13
Porcupine R. S.	10C03	6500	10	4N	10E	1938	3,4,5	1
Sacajawea	10D10	6550	36	2N	6E	1960	3,4,5	1
South Fork Shields	10C08	8100	13	4N	10E	1965	3,4,5	1
Timberline Creek	9D04	8850	10	8S	18E	1961	3,4,5,5½,6	1
West Rosebud	9D02	7500	9	7S	16E	1960	3,4	4
White Mill	9D08	8700	18	9S	15E	1966	3,4,5,5½,6	1,2

SOIL MOISTURE STATIONS

COLUMBIA RIVER BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
KOOTENAI RIVER								
Baree Trail	15B15M	3800	5	25N	30W	1964	Monthly	2
Murphy Lake R. S.	14A10M	3000	5	34N	25W	1964	Monthly	2
Raven R. S.	15A02M	3050	2	26N	29W	1964	Monthly	2
FLATHEAD RIVER								
Desert Mountain	13A02M	5600	24	31N	19W	1956	Monthly	1
Marias Pass	13A05M	5250	34	30N	14W	1950	Monthly	6
CLARK FORK RIVER								
Black Pine	13C13M	7100	26	8N	15W	1965	Monthly	1
Lubrecht Foreat	13C14M	4100	11	13N	15W	1961	Monthly	8
Seeley Lake R. S.	13B19M	4030	21	17N	15W	1963	Monthly	2
Skalkaho Summit	13C03M	7260	30	6N	17W	1964	Monthly	1
BITTERROOT RIVER								
Gibbons Pass	13D18M	7100	4	2S	19W	1962	Monthly	1
Lolo Pass	14C05M	5250	11	10N	24W	1963	Monthly	1

MISSOURI RIVER BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
BEAVERHEAD RIVER								
Lakeview	11E13M	6700	23	14S	2W	1962	Monthly	10
MADISON RIVER								
West Yellowstone	11E07M	6700	34	13S	5E	1966	Monthly	6
GALLATIN RIVER								
Bridger Bowl	10D15M	7250	25	1N	6E	1966	Monthly	1
College Site No. 2	11002M	4856	18	2S	5E	1956	Monthly	1
Lick Creek	10D13M	6860	10	4S	6E	1965	Monthly	1
Twenty-One Mile	11E06M	7150	1	11S	5E	1963	Monthly	6
MISSOURI RIVER MAIN STEM								
Kings Hill	10C01M	7420	34	13N	8E	1963	Monthly	1
Stemple Pass	12C08M	6350	16	13M	7W	1963	Monthly	1
MILK RIVER								
Beaver Creek	9A05M	3950	21	29N	16E	1969	Monthly	1
Rocky Boy	9A01M	4700	22	28N	16E	1969	Monthly	1
YELLOWSTONE RIVER								
Battle Ridge	10D11M	6020	32	2N	7E	1960	Monthly	1
Northeast Entrance	10D07M	7350	33	9S	14E	1962	Monthly	6
PMC Dryland	8D02M	3700	35	6S	23E	1973	Monthly	1
PMC Headquarters	8D01M	3656	34	6S	23E	1973	Monthly	1

LEGEND

1/ Numerals 1,2,3,4,5,5½,6 refer to January 1, February 1, March 1, April 1, May 1, May 15, and June 1.

2/ Numerals refer to Agency making the snow surveys as follows:

1. Soil Conservation Service
2. Forest Service
3. Geological Survey
4. Montana Power Company
5. Bureau of Indian Affairs
6. National Park Service
7. MSU Agricultural Experiment Station
8. U. of M. School of Forestry
9. Department of Energy, Mines and Resources
10. Bureau of Sports Fisheries and Wildlife
11. Private Cooperator
12. Montana Conservation Districts
13. Montana Department of Fish and Game

Agencies and Organizations Cooperating in Montana Snow Surveys

GOVERNMENT AGENCIES

Canada:

Water Survey of Canada, Calgary, Department of the Environment
Water Resources Service, Department of Lands, Forests and Water Resources, British Columbia

Federal:

Department of the Army
Corps of Engineers
U.S. Department of Agriculture
Forest Service
Soil Conservation Service
U.S. Department of Commerce
NOAA, National Weather Service
U.S. Department of the Interior
Bonneville Power Administration
Bureau of Indian Affairs
Bureau of Reclamation
Bureau of Sports Fisheries and Wildlife
Geological Survey
National Park Service

STATE

Montana Association of Conservation Districts
Montana Department of Fish and Game
Montana Department of Natural Resources and Conservation
Montana Water Resources Board
Montana State University - Agricultural Experiment Station
North Montana Branch Station - Agricultural Experiment Station
University of Montana -- School of Forestry

PRIVATE

Montana Power Company

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
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